What colours them green? An enquiry into the drivers of corporate environmentalism in business organizations in developing and developed countries

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A thesis

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by

S. K. Sandhu

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For Harpinder, Zorawar, Sannawar,
and
Mum and Dad
with love and thanks

Pavan Guru, Paani Pita, Mata Dharat Mahat.

(Translation: Air is the Guru, Water the Father, and Earth the Great Mother.)
Guru Nanak (1469-1539)

Abstract of a thesis submitted in partial fulfilment of the requirements for
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Drawing on perspectives from stakeholder, resource dependence, institutional and the resource based theories and using a multiple-case inductive study, this research reframes the drivers of corporate environmentalism in the context of developing and developed countries. Based on case analysis of 23 environmentally responsive organizations in India and New Zealand, corporate environmentalism in this research has been operationalized as a two level construct. Organizations were categorized as being at first order responsiveness when they were observed to recognize the importance of the natural environment and exhibited attempts to decrease their impact on the natural environment through the adoption of programmes aimed at pollution reduction and prevention, decreased resource consumption and recycling of wastes. Organizations at second order responsiveness were observed to exhibit a higher order commitment in integrating environmental issues into their strategic decision making. This involved strategies such as green product development and initiating projects aimed at industrial ecology.

Detailed within and cross case analysis revealed fundamental differences in the drivers that propel business organizations in developing and developed countries to be environmentally responsive at each level. The findings of this study reveal that lax enforcement of environmental regulations in developing countries implied that domestic regulations were not a driving factor for corporate environmentalism. Neither was pressure from consumers or communities reported to be a driving factor. Instead first order environmental responsiveness in organizations in developing countries was observed to be driven by pressure arising out of internationalization. Thus pressure from multinational organizational customers in developed countries and the institutional pressures imposed by the liability of foreignness (that arises when these firms set up subsidiaries in developed countries) drives first order responsiveness in the organizations in developing countries. However higher order environmental

responsiveness in organizations in developing countries was observed to be associated with deep rooted identities and capabilities based in social responsiveness.

In the context of business organizations in developed countries, the necessity to comply with stringently enforced domestic environmental regulations emerged as the primary driver for first order responsiveness. Societal expectations to comply with environmental regulations reinforce the regulatory drivers. Internationalization drives first order responsiveness in organizations in developed countries to the extent that the requirements of the host country are additional to and exceed current regulatory requirements in the parent country. Higher order corporate environmentalism in organizations in developed countries was observed to be associated with environmentally high impact organizations. Such organizations are considered environmental liabilities and are forced by stakeholders (with access to resource needed for continuity of operations) to exhibit higher order responsiveness or face a cancellation of the license to operate. The major contribution of this research lies in extending and reframing the existing theory about the drivers of corporate environmentalism.

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It truly takes a village to complete a PhD!

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CHAPTER 1

INTRODUCTION

Summary

This chapter starts with a brief discussion of current state of the natural environment. It then discusses the stance of the critics who refute the existence of these issues. This is followed by a discussion on the role that businesses are reported to have played in contributing to environmental degradation. An increasing number of businesses have however, now started to include environmental responsibility in their agendas. The literature has not yet however fully addressed what drives business organizations to be environmentally responsible, especially in developing countries. This discussion leads to the research question, which is then elaborated. The chapter concludes with an overview of the structure of the thesis.

1.1 The Current State of Natural Environment

There is now, a growing awareness of the intensity of the environmental change happening on our planet and also of the centrality of the human effort in provoking that change (Dunphy, Griffiths, & Benn, 2007; IPCC, 2007; Meadows, Randers, & Meadows, 2004; UNEP, 2007; WCED, 1987; Welford, 1997). A manifold increase in human population coupled with rapid and uninhibited industrial growth have been identified as the major causes for the downward spiral of the natural environment (WCED, 1987). The degradation of the natural environment has become an important issue for governments and societies throughout the world (Stern Report, 2006). The Intergovernmental Panel on Climate Change (IPCC) in its 2007 report on global warming provides stark evidence about climate change being a reality rather than a distant threat. The IPCC report clearly states that warming of the climate systems is now

unequivocal. The United Nation's *Millennium Assessment Report* also rings a clear warning bell about the deteriorating state of the natural environment (Millennium Ecosystem Assessment Synthesis Report, 2005).

An established body of scientific evidence has thus, especially since the last two decades, increased society's awareness about the complex but urgent environmental problems such as climate change, holes in the ozone layers and diminishing planetary resources (IPCC, 2001, 2007; United Nations, 2006). The World Commission on Environment and Development's (WCED) seminal 1987 report was amongst the initial influential works which highlighted the link between the ongoing degradation of the natural environment and the threat it posed not only to the planet but also to the lives of many species upon it including humankind. Since then issues surrounding changes in the natural environment have steadily moved into the public realm (Stern Report, 2006). It is now widely recognized that burning fossil fuels puts unprecedented amounts of carbon dioxide into the atmosphere and is one of the major causes for global warming (IPCC, 2007). The current atmospheric concentrations of carbon dioxide and methane are higher than they have been for 160,000 years (Meadows et al., 2004). Carbon dioxide retains solar heat that would otherwise radiate away. Global warming caused by overloading the atmosphere with carbon dioxide is predicted ("at very high confidence levels") to interfere with the global climatic patterns (IPCC, 2007, p. 7). The United Nations Environmental Programme (UNEP) (2007) on it's website states that:

> *"The question is not whether climate change is happening, but what to do about it. We need to realistically assess the implications of the changes that are already upon us and adapt accordingly".*

Thus most experts agree that *the issue now* is not whether climate change will *happen or not* but rather by *how much, where and when.* The greenhouse gases are predicted to increase average global temperatures enough to shift agricultural production areas, raise sea levels to

flood coastal cities and disrupt national economies (Ehrlich & Ehrlich, 2004; Stern Report, 2006). In addition industrial gases such as CFC's are depleting the planet's protective ozone layer. The disruption of the ozone shield is being linked with a rise in skin cancers (Bureau of Metrology, 2007; The Cancer Council, 2007). The alarming number of toxic substances that industry and agriculture are putting into the human food chain has lead to a sharp increase in the number of human and animal cancers (WCED, 1987). The rise in temperatures is predicted to increase tropical vector borne diseases in humans (IPCC, 2007; Worldwatch Institute, 2005). The underground water resources in many major global cities are beyond the reach of cleansing (Cairncross, 1995; Meadows et al., 2004). Water scarcity faces many parts of the world (United Nations, 2006). Food security is also threatened by climate change as more than 13 million hectares of forests are converted to low grade farmland unable to support farmers (IPCC, 2007; Millennium Ecosystem Assessment Synthesis Report, 2005; United Nations, 2006). In Europe, acid precipitation kills forests and lakes and damages the artistic and architectural heritage of nations (WCED, 1987). It has acidified vast tracts of soil beyond reasonable hopes of repair (Cairncross, 1995).

In the 30 year update to *Limits to Growth*, Meadows et al. (2004) reassert their original 1972 message about the world's dwindling renewable and non renewable resources and the overflowing and choking planetary sinks. While the limits proposed in 1972 were on many accounts overtly pessimistic, the core message holds true: *the natural environment needs urgent attention*. The difference is that this time around the time left to react to the "overshoot" (Meadows et al., 2004, p. 1) has decreased by thirty years.
It will take the concerted effort of governments, societies, and businesses throughout the world to find ways of dealing with this threat (Dunphy et al., 2007).

1.2 The Critics

The evidence provided by scientists regarding environmental problems has not gone unchallenged by critics. The critics broadly fall into two categories. The first category of critics includes the scientists who debate the exact level of certainty of environmental damage and its consequences. Such questioning is of course integral to promoting scientific rigour. But science is now getting to a point where it is hard to deny the effect of human activities on the natural environment. Atmospheric levels of carbon dioxide in 2005 were higher than they have been for 650,000 years and of the 12 warmest years on record 11 occurred between 1995 and 2006 (Kluger, 2007). So as argued in *Time* (2007, p. 36) "when the last good position of the critics is to debate the difference between certain and extra certain, the critics are playing a losing hand".

The second category of critics is those who completely deny the existence of environmental problems. Their message is seemingly simple: The scientists, the policymakers and the NGO's concerned about environmental problems are propagating a hoax. Arguably the best known and controversial of this category of critics is Lomborg. His book *The Sceptical Environmentalist: Measuring the Real State of the World* (Lomborg, 2001) has generated immense controversy. While Lomborg is not the first to challenge the degradation in the natural environment, he is amongst the most recent. He has been widely acclaimed (and equally stringently criticized) and has become very popular even outside academic and scientific circles. He has become almost a cult figure for people who disagree about the existence of environmental problems (Harrison, 2004). His work follows from other similar though less widely known works such as *The Coming Age of Environmental Optimism* (Easterbrook, 1995) and *The Ultimate Resource* (Simon, 1981). Both are concerted attempts

to debunk the world's environmental problems. However what all these books have in common is that they miss critical literature to support their thesis.

While Lomborg (2001) draws a lot from these previous works (and consequently has similar shortcomings), it is however *The Skeptical Environmentalist* that has drawn the maximum controversy and media attention. Lomborg targets what he calls "the Litany" (2001, p. 3) of environmental doom propounded by environmentalist, some scientists and the media. He argues that their message about global environment being in a poor shape and getting worse because of resource depletion, population pressures and pollution is false. He presents a different and a rosier picture: energy and natural resources are abundant, population growth is not a problem, water scarcity is a myth, species extinction and loss of biodiversity have been vastly exaggerated, and climate change is unlikely to be as devastating as predicted. His fundamental assertion is that in most aspects the environment (and the state of the world) is getting better rather than worse and human life is improving by almost every measure. In places where human life is not getting better and poverty and pollution are rampant, economic growth will automatically solve the problem. For the media and the policy makers who are sceptical of the claims regarding environmental damage and for those who advocate unquestioned economic growth as the answer to all problems, the book provided an opportunity to question the credentials of the environmentalists and the scientists who support the certainty of environmental damage. It has consequently been described as a triumph in some quarters (The Economist, 2002 February 2) but denounced by others as deeply flawed and full of factual errors (Pimm & Harvey, 2001).

Some of Lomborg's tenets are indeed true, human life has improved in many aspects and innovations have allowed humanity to continue with very high levels of resource

consumption. The environment in the developed countries has at least in some respects improved over the last few decades (the much debated Kuznet's curves). Lomborg's argument spreads over 350 pages and 2900 footnotes, which at least on the face of it seem to be evidence of his carefully researched work. However in his zeal to prove that *everything* is right with the environment Lomborg seriously falters. *The Skeptical Environmentalist* has consequently been severely criticised for consistently "misrepresenting, misinterpreting" (Wilson, Lovejoy, Myers, Harvey, & Pimm, 2003, p. 1) and "misusing" data (Gleick, 2003, p. 3) to reach misleading and flawed conclusions (Bongaarts, 2002; Holdren, 2002; Lovejoy, 2002; Rennie, 2002; Schneider, 2002). It has also been censured for conceptual confusion, selectively choosing problems, and glaring factual errors (Bongaarts, 2002; Eckersley, 2002; Grubb, 2001; Holdren, 2002; Lovejoy, 2002; Pielke, 2002; Pimm & Harvey, 2001; Rennie, 2002; Schneider, 2002; Union of Concerned Scientists, 2003). In 2003 the Danish Committee on Scientific Dishonesty upheld complaints of scientific dishonesty against Lomborg. In its report the committee stated that *The Skeptical Environmentalist* was clearly contrary to the standards of good scientific practice due to the author's systematically biased choice of data (Danish Committee on Scientific Dishonesty (UVVU), 2004).

A careful perusal of Lomborg's book (2001) reveals it to be a mass of contradictions. In an attempt to debunk scientific evidence supporting the degradation of natural environment by human activity, Lomborg uses a consistent (though primarily unscientific and flayed) approach. Following the publication of his book, some of the most respected scientific journals including *Nature*, *Science* and *Scientific American*, painstakingly explained the basic and glaring flaws in Lomborg's thesis. His selective use of data made it possible for him to point out improvements in some environmental indicators. For example he states that global forest coverage is relatively unchanged over the past 50 years but fails to state the

implications of replacing mature old growth forest with young commercial plantation forests or the ensuing loss of biodiversity (Gleick, 2003). In a similar vein Lomborg computes the total amount of freshwater that is theoretically available, per person, on a global average and states that there is no problem of water shortage. Such a statistic however has no meaning. The global average water availability is a complex problem related to regional access to water and has nothing to do with global average water availability per capita (Gleick, 2003). In his chapter on biodiversity Lomborg (2001, p. 251) concludes that since there is no market for ecosystem services and the species at risk of extinction (which has been conspicuously underreported contrary to all scientific evidence) they do not constitute an actual economic resource. So their loss should not be worrying us. What he conveniently neglects to mention is that while the current markets do not capture the value of ecosystem services, we are dependent on them; they provide the foundation of life. Their services range from pollination to purification of water (Wilson et al., 2003). He frequently cites news, popular media and even the opinions of science fiction authors to support his claims in most of his nearly 3,000 footnotes as opposed to scientifically robust peer reviewed studies (Lamberts, 2002). When he does cite scientific studies he is shy of citing primary studies (Pimm & Harvey, 2001). In essence what is wrong with Lomborg's analysis is that he deliberately picks up problems in isolation, applies statistical manipulation using obscure, out of context secondary studies, to deny the problem thus giving weight to the adage that statisticians know how best to misuse statistics (Gleick, 2003).

Lomborg thus falls short in almost all respects of good scientific analysis and reporting. Perhaps he fails most in not recognising the interdependence that is crucial for maintaining the complex web of life. Environmental problems are holistic and cannot be taken out of context and examined. A single species of butterfly extinct, when considered in isolation is

nothing, but viewed in context, is loss of pollination and fall in yields. It is in failing to value this interdependence that Lomborg falters.

Apart from the lingering voices of critics the majority of the scientific community is concerned about the damage to the natural environment. It is now been established that climate change will, in many parts of the world, adversely affect socio economic sectors (UNEP, 2007). This damage encompasses negative effects to water resources, agriculture, forestry, fisheries and ecological systems (IPCC, 2007; Millennium Ecosystem Assessment Synthesis Report, 2005; United Nations, 2006). Thus, there is now a general understanding of the fact that environmental changes caused by rising population and increasing industrial pollution are overwhelming the natural biological cycles and control processes which are vital to life and survival.

1.3 The State of Environment and Business Organizations

It is impossible to separate economic development from environmental issues. Many forms of economic development erode the environmental resources upon which they are based. Environmental degradation in turn can undermine economic development (WCED, 1987). As governments and people awaken to the urgency of this problem, industries the world over are being pressurised into being more environmentally benign. Welford (1997, p. 4) in fact puts the blame for the current environmental predicament squarely on the current global economic system:

> *Business has to accept a very large share of the responsibility for this devastation and crises. Businesses are central to a system which is destroying life on Earth and if we continue with this path not one area of wilderness, indigenous culture, endangered species or uncontaminated water supply will survive the global market economy.*

Industries, governments and consumers have been identified as the main agents for achieving a more sustainable form of development (Shrivastava, 1995c). Business leaders are also increasingly recognizing this as is reflected by the formation of organizations such as the World Business Council for Sustainable Development. An increasing number of businesses are taking up the challenge and responding in environmentally responsive ways (Hart, 2007).

However although an increasing number of businesses are recognising the need to include the natural environment in their decision making process and be environmentally responsible, the genuineness behind their environmental commitment remains open to questions. The degree and extent of environmental commitment behind the corporate green practices has often been questioned and criticized (Milne, Kearins, & Walton, 2006; Welford, 1997). Critics dismiss the environmental agenda of business organizations as "greenwash" or even a more planned "hijacking of environmentalism" (Welford, 1997, p. 16). They also argue that corporate environmental initiatives are aimed at shifting the goalposts in favour of weak sustainability and eco efficiency in the overall debate about what constitutes corporate sustainability (Milne et al., 2006). This debate and the criticisms are integral for defining corporate environmental responsibility. Also seen from the wider perspective of achieving sustainability, this debate contributes towards delineating the responsibilities and roles of corporations, governments and societies in achieving sustainable development. Thus the debate about the extent of genuine commitment behind corporate environmental practices is important and has its significance. But while it can be argued that the form of sustainability espoused by business is weak (Welford, 1997) at the same time, the fact that businesses are increasingly adopting environmental initiatives cannot be easily dismissed (Porter & Reinhardt, 2007). Now more than ever, environmental responsibility is establishing itself on the agenda of many business organizations (Dunphy et al., 2007; Hoffman, 2007; Schwartz, 2007). Consequently an

increasing number of businesses are committing to include the natural environment in their

decision making process (Kolk, 2008). As a result, even though management literature has

traditionally ignored the constraints imposed on businesses by the natural environment (Hart,

1995), yet in seeking to explain and theorise this change in business environment, there is a

growing trend in management literature which recognises the ecological constraints placed

upon organizations and reports the process of organizational response and adaptation to

environmental change (Andersson & Bateman, 2000; Aragon-Correa, 1998; Banerjee, Iyer, &

Kashyap, 2003; Bansal, 2005; Benn, Dunphy, & Griffiths, 2006; Christmann, 2000, 2004;

Collins, Lawrence, Pavlovich, & Ryan, 2007; Dean & Brown, 1995; Gardberg & Fombrun,

2006; Gladwin, Kennelly, & Krause, 1995; Kearins & Pavlovich, 2002; Lawrence, Collins,

Pavlovich, & Arunachalam, 2006; Livesey & Kearins, 2002; Menguc & Ozanne, 2005;

Porter, 1991; Porter & Linde, 1995a, 1995b; Prakash, 2001; Sharma & Vredenburg, 1998;

Shrivastava, 1995c; Springett, 2003). This growing body of research has contributed a lot to

our understanding about corporate environmentalism. However perhaps because corporate

environmentalism is a relatively new phenomenon (with most of the research dating back only

a decade) there are some important questions that pose challenges for researchers.

1.3.1 The first challenge

The first challenge is that the bulk of the current literature on corporate environmentalism

(examples of which have been cited above) is in the context of the developed world. The

developing world, where the next round of massive industrialisation is under way (Jeppesen

& Hansen, 2004), is conspicuous by its absence from this literature. According to the World

Commission on Environment and Development (1987), the industries which are most heavily

reliant on environmental resources and are most heavily polluting are growing most rapidly in

the developing world, where there is both more urgency for growth and less capacity to

minimize the damaging side effects. As a result some of the most serious environmental

damage is occurring in developing countries and often is a threat to the very existence and

survival of people in these countries (Cairncross, 1995; UNEP, 2007; WCED, 1987). The

environmental problems in developing countries are compounded by chronic fiscal problems

of the state, policy and planning failures, unemployment and rising populations (Dasgupta,

Mody, Roy, & Wheeler, 1995; Shrivastava, 1992). Unfortunately, governments in developing

countries are under pressure to increase economic growth and often put environmental issues

on the backburner (Cairncross, 1995). A number of researchers (Hart, 1995; Sharma & Starik,

2002; Shrivastava, 1995c) have called for further studies on the determinants of

environmentalism in developing countries, but this issue remains largely unaddressed. It is

important to stress here that because of the political, social, economic and technological

differences between the developing and the developed countries the drivers for developing

countries will differ from those in developed countries (Jeppesen & Hansen, 2004; Jeswani,

Wehrmeyer, & Mulugetta, 2008). There are very few relevant studies pertaining to

environmental responsiveness in developing countries and the ones which have ventured into

this realm have often limited their focus to examining environmental improvements occurring

in business organizations in developing countries as a result of linkages with multinationals

(Christmann & Taylor, 2001; Jeppesen & Hansen, 2004; Ruud, 2002). However the evidence

presented by these studies regarding environmental improvements in business organizations

in developing countries as a result of multinational linkages remains contested by other

studies (Dasgupta, Huq, & Wheeler, 1997; Hartman, Huq, & Wheeler, 1997; Hettige, Huq,

Pargal, & Wheeler, 1996). Apart from the fact that evidence of environmental improvements

as a result of multinational linkages remains contested, research has not focussed specifically

on the other potential drivers that might propel organizations in developing countries to be

environmentally responsive. Thus the first challenge for this research is to holistically examine the drivers of corporate environmentalism in developing countries.

1.3.2 The second challenge

The second challenge for this research lies in developing a more elaborate theoretical framework for examining the drivers of corporate environmentalism. Thus even though a number of recent studies (in the context of developed countries) have examined the antecedents of corporate environmentalism (Andersson & Bateman, 2000; Banerjee et al., 2003; Bansal & Roth, 2000; Collins, Lawrence, Pavlovich et al., 2007; Dunphy et al., 2007; Henriques & Sadorsky, 1999; Lawrence et al., 2006; Majumdar & Marcus, 2001), these studies have either focussed on an in depth analysis of single, isolated factors that might influence corporate environmentalism or on groups of stakeholders. Accordingly researchers focussing on an in depth analysis of single issues have attempted to explain issues such as the role of internal champions (Andersson & Bateman, 2000), the role of regulations (Majumdar & Marcus, 2001), etc. The second category examines the effects of groups of stakeholders on corporate environmental responsiveness. In this category, Henriques and Sadorsky (1996; 1999) Banerjee et al. (2003) and Dunphy et al. (2007) have identified critical stakeholder groups such as regulatory bodies, communities, environmental activists, investors, media and employee expectations. Bansal and Roth (2000) have identified three major motivations for ecological responsiveness: competitiveness, legitimation and environmental responsibility. Lawrence et al. (2006) and Collins, Lawrence, Pavlovich et al., (2007) stress on the importance of the values and beliefs of the managers as primary drivers for corporate environmentalism.

While the above approaches have added considerably to the understanding of corporate environmental responsiveness, researchers have however yet to reach a definitive conclusion regarding the relative importance of these stakeholder groups from the managerial viewpoint (Kassinis & Vafeas, 2006; Russo & Harrison, 2005). One reason for this ambivalence in extant research might be that researchers have used an either/or approach to theoretical frameworks to examine drivers of corporate environmentalism. Thus researchers have used either stakeholder (for example, Banerjee et al., 2003; Henriques & Sadorsky, 1999) or institutional (for example, Bansal & Roth, 2000) frameworks for examining drivers of corporate environmentalism. However for a complex phenomenon that is characterized by multiple motivations, a more elaborate theoretical framework that draws across different theoretical insights is more appropriate (Bansal, 2005; Benn & Dunphy, 2005; Collins, Kearins, & Roper, 2005). The second challenge for this research therefore is to integrate perspectives from different theoretical viewpoints so as to be able to more completely examine the drivers of corporate environmentalism in developing and developed countries. This research accordingly draws on institutional, stakeholder, resource dependence and resource based perspectives.

1.3.3 The third challenge

The third challenge for this research pertains to methodological issues. Thus with the exception of Bansal and Roth (2000) and Dunphy et al. (2007) existing studies have essentially adopted a structured and a pre determined list of stakeholders that are considered as important drivers of corporate environmental practices. The managers who respond to these questionnaires simply had to quantify their agreement (or the lack of it) with these pre defined (and hypothesed) drivers. This methodology though a very effective way of testing theory,

necessarily constraints the drivers that managers could have perhaps uncovered and identified through a different methodology (Creswell, 2003).

This research proposes to use a different methodological lens, involving qualitative analysis. The managers will be depth interviewed, personally, using open ended questions. This will prevent the managerial responses from being constrained by rigid pre determined scales. It will allow the managers to draw on their experiences and intimate knowledge of the organization's environmental practices. The managers thereby can provide more meaningful insights. Depth interviews, qualitatively analysed, can thus allow a deeper examination of the reasons why organizations adopt environmentally responsible practices. It is possible that the drivers thus uncovered may not have been reported as a part of well established and cited literature. Thus because this research proposes to employ qualitative analysis using depth interviews it might have the advantage of uncovering drivers that might not have been identified or uncovered by previous research using structured questionnaires and theory testing methodologies.

1.4 Research Question

This research thus attempts to address the following primary research question:

- ➢ What drives corporate environmentalism in business organizations in developing and developed countries?

This research also examines:

- ➢ The environmental issues that are considered relevant by organizations in developing and developed countries.
- ➢ The processes and structures through which the organizations deal with these environmental issues.

1.5 Overview of the Thesis

This thesis contains seven chapters and six appendices. Chapter 1 provides a context for the research and specifies the research question.

Chapter 2 builds on the discussion in Chapter 1 and elaborates the evolution of corporate environmentalism.

Chapter 3 reviews the extant literature on corporate environmentalism. The literature review situates this study in the broader literature on corporate environmentalism and also identifies the gaps in the extant literature that this study intends to examine.

Chapter 4 provides the theoretical framework that this study is grounded in.

Chapter 5 details the research methodology. It elaborates the research paradigm, the research design, the data collection techniques and the methodological limitations. It also explains why alternative methods were not used.

Chapter 6 has been divided into three parts. Chapter 6A deals with those findings of this study that provide a basis for investigating and reporting the drivers of corporate environmentalism. Chapter 6B and 6C detail the drivers of first and second order corporate environmental responsiveness in the case study organizations in India and New Zealand respectively.

Chapter 7 is the concluding chapter and discusses the theoretical propositions that emerge from this study. It also specifies the limitations, the implications, the directions for future research and the contributions of this study.

CHAPTER 2

SHIFTING PARADIGMS IN CORPORATE ENVIRONMENTALISM: FROM POACHERS TO GAMEKEEPERS

Summary

This chapter traces the origins of corporate environmentalism. It elaborates how corporate environmentalism evolved as a result of pressures from society, consumers and governments. It also briefly discusses the phase models that explain the various stages in adoption of corporate environmentalism. The chapter concludes with a discussion on the challenges and opportunities that business organizations face when they incorporate corporate environmentalism into their strategic decision making process.

2.1 Tracing the Origins of Corporate Environmentalism

"Spring now comes unheralded by the return of the birds and the early mornings are strangely silent where once they were filled with the beauty of the bird song"
(Carson, 1962, p. 84)

The Silent Spring (Carson, 1962) has been credited with initiating modern environmentalism. In her book Carson, a biologist, contends that *"for the first time in the history of the world, every human being is now subjected to contact with dangerous chemicals, from the moment of conception until death"* (p.13). Carson's work explained how the use of pesticides and insecticides was polluting soil and water resources and thereby leading to a rise in cancers and loss of biodiversity. Thus even as far back as 1962 the link between profligate usage of synthetic insecticides and pesticides and the destruction of the natural ecosystems and the rise

in human cancers had been scientifically established. The reaction to Carson's book was monumental. Carson's lucid work allowed people to grasp the fact that humans are but one part of the vast and intricate ecological web. Carson has been compared with Darwin in the sense that she took a vast range of information and put it in terms that people could understand (Marco, Hollingworth, & Durham, 1987). As a result of Carson's book the insecticide and pesticide industry (which after the Second World War had started to occupy a place of pride) was under intense spotlight and for the first time for the wrong reasons. In 1972, a decade after the publication of *Silent Spring* the American Congress passed far reaching amendments that mandated the protection of public health and the environment as a guiding principle for the pesticides industry (Marco et al., 1987).

Lovelock's work on Gaia (1982), as a self regulating earth provided a further impetus to the environmental movement as did the first pictures of a fragile planet taken from the space. Gaia became the slogan word for the environmental movement and images of earth featured strongly in the campaigns of the environmental organizations (Elkington, 1997). The first Earth day was celebrated in 1970 in the United States. In the year 1972 *Limits to Growth* (Club of Rome, 1972) was published. *Limits to Growth* used computer modelling techniques to show how population increase and rapid industrialization had the potential to surpass sustainable rates. While some of the predictions of the original *Limits to Growth* now appear to be overtly pessimistic (Grubb, 2001), it however had a significant impact at the time of its publication. It sold more than 12 million copies in 37 languages. The shortcomings of *Limits to Growth* existed because computer modelling techniques were in the early stages of development in the 1970's. This was the first time computer modelling had been used for a very ambitious exercise involving data from throughout the world. In the 1970's methods of data collection were still rudimentary and many countries did not know the true size of their

populations. Thus there were shortcomings both in modelling techniques and data collection (Suter, 1999) and this resulted in some of the predictions being too alarmists and unwarranted.

A number of other influential books including *Population Bomb* (Ehrlich, 1968), *Population Resource Environment* (Ehrlich & Ehrlich, 1970), *Closing Circle* (Commoner, 1971), *Only One Earth* (Ward & Dubos, 1972), *Under Siege* (Wagner, Bailey, & Campbell, 1973) and *Ark II* (Pirages & Ehrlich, 1974) were published around this time. Once again some of these publications, (especially Ehrlichs's work) have been criticized for exaggerating the problems of population growth and food supply (Grubb, 2001; Maddox, 1972; Simon, 1981). However the significance of these publications lies in the fact that even though not all the predictions actually materialized, they did bring about a rise in public awareness regarding issues related to the natural environment. These publications thus made businesses, governments and society aware of the problems that may have to be faced if economic growth continued to exclude planning for the natural environment. This rising public awareness coupled with the pressure from fledging green movements and organizations (such as Greenpeace and World Wildlife Fund) saw the start of extensive environmental legislation in Europe and North America. OECD published its first State of Environment report in 1979. The seventies also witnessed the formation of the national environment protection agency (EPA) and a host of other environmental ministries and departments in the USA (Elkington, 1997).

2.2 Growth of Corporate Environmentalism

In 1984 the world's biggest industrial disaster, Union Carbide's gas leakage at Bhopal, took place. This further brought business organizations into the limelight because of the sheer magnitude of environmental and social disasters that can be caused by corporate irresponsibility (Shrivastava, 1992). It was in 1985 that the ozone hole over the Antarctic

(caused by CFC using and producing industries) was discovered. The Montreal Protocol designed to control CFC's emissions was signed in 1987 by 35 nations. This protocol effectively sounded the death knell of the global CFC industry. It was also a clear reminder of how environmental damage by industries could not be confined to national or regional boundaries but had far reaching and global consequences.

Ecological disasters such as the Exxon Valdez (1989) disaster and the Chernobyl nuclear disaster (1986) further pushed the link between industry and environmental catastrophes into global prominence. Industries by now had started to recognize that they could no longer abdicate responsibility for environmental problems (Elkington, 1997)

2.3 Sustainable Development and Business Organizations

In 1987 The World Commission on Environment and Development published the landmark report *Our Common Future*. Gro Harlem Brundtland, the then Norwegian Prime Minister headed the Commission which was set up as an independent body in 1983 by the United Nations. It had commissioners from 22 countries as a part of the Commission (WCED, 1987). The message that emerged from this report was clear. Rising population and massive industrialization were leading to a downward spiral in the natural environment. Public concerns about negative impacts of industrial growth were by now increasingly gaining momentum. It was in this report that the concept of sustainable development was first defined. WECD defined sustainable development as *"development that ensures that it meets the needs of the present without comprising the ability of future generations to meet their own needs* (p. 8). This definition encompasses the economic, social and environmental aspects of sustainability and is the most widely citied definition of sustainable development. It has however been criticized on the grounds of being vague and non specific, especially in regards

to environmental sustainability (Court, 1990). Elaborating the above definition, Daly (1991) offers a more precise definition of environmentally sustainable development as one that meets the following three criteria:

1. Its rate of use of renewable resources should not exceed their rates of regeneration.

2. Its rate of use of non renewable resources should not exceed the rate at which sustainable renewable substitutes are developed.

3. Its rate of pollution emission should not exceed the assimilative capacity of the environment.

Taken together, both these definitions carve a unique and a distinct role for business organizations in achieving environmentally sustainable development. The role of businesses in achieving environmentally sustainable development was further delineated in Beyond *the Limits* (Meadows, Meadows, & Randers, 1992) a revised and updated sequel to *Limits to Growth*. In this famous book the authors concluded that the world had already overshot some of its limits as predicted in *Limits to Growth* and if the present trends remain unchanged, the prospect of a global economic collapse in the next century was virtually certain.
"Like everyone else we didn't really want to come to these conclusions" (p. xv) write the authors. However they further state that *"The decline is not inevitable. To avoid it two changes are necessary. The first is a comprehensive revision of policies and practices that perpetuate growth in material consumption and in population. The second is a rapid, drastic increase in the efficiency with which materials and energies are used"* (page xvi).

The message for businesses stressed on a reassessment of their strategies to include the natural environment into their decision making criteria. People and governments in many developed countries by now had started understanding the implications of these scientific

findings. The rising popularity of the green parties in a number of European countries had influenced another wave of environmental regulation in the early 1990's (Elkington, 1997). Regulations had started to emphasise the "Polluter Pays" principle as the basis for environmental legislation in most countries. In Europe legislation around the principle of BATNEEC (best available techniques not entailing excessive costs) and BPEO (best practicable environment option) helped reconcile the twin objectives of economic growth and environment protection (Welford, 1998).

In the nineties consumer movements favouring environment friendly products were also becoming prominent. Consumers were reporting, not only a willingness to incorporate environmental criteria into purchase decisions but were also willing to pay a premium for greener products (Ottman, 1998). In the USA the proportion of green products among new product introductions rose from 1.1% in 1986 to 13.4% in 1991 (Ottman, 1998). Books such as the *Green Consumer Guide* (Elkington & Hailes, 1988) which allowed the consumers to make environment friendly buying decisions proved immensely popular. The *Green Consumer Guide* stayed on the best seller in the UK for over 40 weeks and sold more than a million copies. Consumers were thus another important influencer for corporate environmentalism (Elkington, 1997; Ottman, 1998).

The pressure from society, consumers and governments thus provided an initial impetus for business organizations to include sustainability and environmental concerns into their decision making criteria. The ozone layer's start towards recovery is an environmental success story in this regard. It was brought about by the timely and concerted actions of consumers, governments and industrial corporations (Meadows et al., 1992).

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2.4 Changing Roles

The 1992 UN Earth Summit at Rio de Janerio was a significant milestone. One important outcome of this summit was the formation of the Business Council for Sustainable Development. The declaration of the Business Council for Sustainable Development states

> *"Business will play a vital role in the future health of this planet. As business leaders we are committed to sustainable development. This concept recognizes that economic growth and environmental protection are inextricably linked."* (Schmidheiny, 1992, p. xi).

Thus there has been a fundamental shift in the way that industry views the natural environment (Welford & Gouldson, 1993). Business organizations have come a long way from where they once viewed environmentalism as being inimical to business interests to now regarding environmental management as a strategic tool for gaining competitive advantage (Hart, 2007; Hoffman, 2007; Porter & Reinhardt, 2007; Schwartz, 2007). There has been a gradual conversion of businesses, in the last few decades, from being regarded as poachers of the natural environment to aspiring to be the gamekeepers.

Shell's experience provides an interesting insight in this regard. Shell's core business is petroleum exploration and refining. Petroleum exploration and refining are extremely damaging to the natural environment. Also the fact that burning of fossil fuels is one of the major causes of global warming causes Shell to be viewed as an environmentally destructive business. In 1995 there was a massive public outcry against Shell. This public outburst involved an environmental controversy involving Shell's plans to dump the Brent Spar, a huge superannuated oil storage platform in the North Atlantic and also over Shell's failure to publicly oppose the Nigerian government's execution of Ogoni environmental activist who were opposing Shell's activities in Nigeria (Greenpeace, 1995; Shell, 2007a; Shell (Nigeria), 2007a, 2007b). Consumers in Europe, especially Germany started to boycott Shell and even

attack Shell stations. Badly shaken by this controversy Shell sought to redefine itself in the now famous "People Planet and Profits" report. The executives at Shell made a concerted effort to include environmental and sustainability issues into their decision making and reporting process (Mirvis, 2000). Shell is now committed to exploring environment friendly fuels as a part of its strategic planning. It is a leading investor in developing renewable energy sources such as wind energy, fuel cells, solar power and biofuels (Shell, 2007b).

Another illustration of business organizations trying to include environmental planning into their strategic decision making is the chemical industry's Responsible Care Initiative (Responsible Care, 2007). The chemical industry which is one of the most ardently criticized industries in regards to environmental performance has established a worldwide Responsible Care Initiative. Responsible Care is a voluntary initiative of the global chemical industry focussing on improving environmental accountability and performance. Major chemical companies in 52 countries around the world are members of Responsible Care. Business corporations have thus now started to look at moving beyond compliance and are increasingly self regulating their environmental conduct (self regulation in this context refers to adopting environmental performance standards that exceed the requirements of government regulations), (Christmann, 2004). Environmental concerns are now becoming an agenda item at the board level of almost all major multinational corporations.

Paul Hawken, a leading entrepreneur emphasizes that businesses are part of the problem and now need to be part of the solution (Hawken, 1993). Corporate strategy is now being influenced by environmental pressures (Dunphy et al., 2007; Hoffman, 2007; Porter & Reinhardt, 2007; Schwartz, 2007). Many companies have been promoting the view that incorporation of environmental policies has been a win - win situation for them and has

resulted in substantial cost savings. 3M has a scheme called Pollution Prevention Pays,

Chevron has SMART (Save Money and Reduce Toxics), Texaco has WOW (Wipe Out

Waste) and Dow Chemicals has WRAP (Waste Reduction Pays) (Cairncross, 1995). 3M's

much publicized Pollution Prevention Pays has saved it more than $1 billion and prevented

more than 1.13 million tons of pollutants since it was launched in 1975 (3M, 2007).

Companies like Patagonia and Ben and Jerry's are amongst the most famous companies

which have based their businesses around environmental practices. Almost every

multinational business organization now discusses its environmental practices in its annual

reports and has an environment division within the organization (Kolk, 2008). Of course this

is not to say that glossy images in the annual report or merely having an environmental

division are by any means an indication of doing enough environmental good. The point

being made here is that corporate environmentalism has over the last decade become a part of

the corporate strategic planning process at least for the bigger and the more visible

organizations. Bigger organizations because they have a greater number of stakeholders are

under greater pressure to be environmentally responsible (Arora & Cason, 1995; Bowen,

2000; Darnall, Henriques, & Sadorsky, 2006; Sharma & Henriques, 2005; Sharma &

Vredenburg, 1998). The stakeholders of bigger organizations often have expectations that the

organizations will go beyond compliance. The small and the medium enterprise because they

have fewer stakeholders are not so much under pressure to be environmentally responsible

beyond their compliance requirements (Sharma, 2000).

The next section discusses the phase models that describe the various stages of corporate

environmentalism.

2.5 Phase Models of Corporate Environmentalism

There of course, is little homogeneity in the way business organizations respond to environmental issues. Different organizations are and will be at different stages of environmental responsiveness. Researchers from both corporate environmentalism and the broader field of corporate sustainability (CS) have developed phase models that attempt to describe an evolutionary progression from little or no action being taken to being the leading edge companies. While subtle nuances and finer points differentiate the frameworks developed by Hunt and Auster (1990), Roome (1992), Hart (1995), Marrewijk and Were (2003) and, Benn and colleagues (Benn, Dunphy, & Griffiths, 2004; Benn et al., 2006; Dunphy et al., 2007), the common focus however is on developing progressive categories that help explain and guide organizational responses to environmental (and sustainability) challenges.

Hunt and Auster (1990) classify organizations into five stages ranging from the "beginner" who tend to cope with environmental concerns either by ignoring the existence of the problem through to stage five "proactivist" who seek competitive advantage in environmental challenges. Roome (1992) further extends the above descriptive framework and explores the strategic options available to businesses who are responding to environmental issues. His classification includes five strategic options extending from non compliance to being the environmentally leading edge organizations. Hart's (1995) classification includes organizations at three stages: pollution prevention, product stewardship and sustainable development. Berry and Rondinelli (1998) use a historical response approach to show evolution of corporate environmental management. Their first category consists of organizations in the 1960's to 1970's who avoided compliance with regulatory controls. The second category consists of organizations in the 1980's that tried to react to regulations by

meeting the minimum regulatory requirements. The third stage is proactive environmental management by organizations in the 1990's (and beyond). The phase model developed by European Corporate Sustainability Framework (Marrewijk & Werre, 2003) discusses six ambition levels, ranging from red (no ambition to incorporate corporate sustainability) to turquoise in which CS is fully integrated in every aspect of the organization. One of the most recent and comprehensive of the phase models is the framework developed by Benn and colleagues (Benn et al., 2004, 2006; Dunphy et al., 2007). The six stages in this model depict a progression (incremental or transformational) from the initial phase of rejection of sustainability concerns, to non responsiveness, compliance, efficiency, strategic proactivity and culminating in the ideal phase of the sustaining corporation. This model incorporates both human and environmental sustainability but is an improvement over other such CS models as it clearly delineates the requirements for human and environmental sustainability at each of the six stages of the model. This adds considerably to the theoretical and practical applicability of this model.

Table 2.1 Summary of phase models

Stages	Hunt and Auster (1990)	Roome (1991)	Hart (1995)	Berry and Rondinelli (1998)	Marrewijk and Werre (2003)	Benn et al. (2004, 2006) and Dunphy et al. (2007)
6			Sustainable development		Holistic (Turquoise)	Sustaining corporation
5	Proactivist	Leading edge			Synergistic (Yellow)	
4	Pragmatist	Commercial and environmental excellence	Product stewardship	Proactive	Caring (Green)	Strategic proactivity
3	Concerned citizen	Compliance plus	Pollution prevention		Profit driven (Orange)	Efficiency
2	Fire fighter	Compliance		Reacting to legislation	Compliance driven (Blue)	Compliance
1	Beginner	Non compliance		Avoiding compliance	Pre CS (Red)	Non responsiveness
0						Rejection

The various phase models thus assist in categorizing organizations at different levels of environmental responsiveness and also illustrate an evolutionary progress in the ways businesses respond to environmental challenges. Table 2.1 summarizes the various phase models.

2.6 Challenges of Corporate Environmentalism

While an increasing number of business organizations are adopting environmentally responsible practices albeit as discussed above at different levels, a legitimate debate about the challenges of going green continues. The conventional view is that environmental regulations impair economic competitiveness (Cairncross, 1994; Palmer, Oates, & Portney, 1995; Walley & Whitehead, 1994). According to this view environmental initiatives and compliance have "skyrocketing" costs which rarely, if ever have an economic payback (Walley & Whitehead, 1994, p. 46). Cairncross (1994) further states that environmental initiatives also have real costs in terms of managerial time. Framed in this fashion the trade off is between protecting the environment and harming business or protecting business and harming the environment. The conventional view also limits the debate to a social benefit-cost analysis. It argues in favour of weighing the social benefits arising from environmental protection with the private costs of pollution control and prevention to the industry (Cairncross, 1994; Palmer et al., 1995). It however does not include into this analysis, any benefits that might accrue to businesses as a result of innovation in products and processes.

This view has been challenged by a win-win conception of the environment and business (Porter, 1991; Porter & Linde, 1995a, 1995b). According to this view "the conflict between environmental protection and economic competitiveness is a false dichotomy" (Porter, 1991, p. 96). According to Porter, the conventional view results from a static view of competition.

The static model does not represent the real world where innovative solutions are being constantly discovered in response to various pressures. Properly designed environmental regulations which aim at outcomes and not methods can trigger innovation. This can result in lowering costs or improving products and can offset environmental costs (Porter & Linde, 1995a). Porter's view has found support from policy makers, businesses and academicians. Hart and Ahuja (1996) found empirical evidence to support Porter's case studies. Their analysis of 127 firms found that it does indeed pay to be green through less material consumption and lower cost of waste disposal. However once the "low hanging fruit" is harvested further reductions in emissions become progressively difficult (Hart, 1995). Thus environmental initiatives appear to have real economic payoffs through cost savings and competitive advantage gained (Clarke, 1994; Esty, 1994; Piet, 1994; Schmidheiny, 1992; Smart, 1994; Wells, 1994).

Business themselves are of the view that, just as complying with any other regulation is not a choice, nor is compliance with environmental laws (Greeno, 1994). In response to Walley and Whitehead's (1994) arguments about environmental compliance resulting in very insignificant cost saving but having very significant costs, business leaders say that in business parlance it is not expected that complying with environmental or any other regulation will or should yield a positive financial return (Clarke, 1994). Environmental investments have become a "cost of staying in business" (Gray, 1994, p. 47) and are imperative for "protecting the franchise to operate" under changed societal expectations (Greeno, 1994, p. 39). Moreover the monetary and non monetary costs (e.g. under criminal enforcement senior executives face imprisonment for environmental breaches) of non compliance can be very significant (Cairncross, 1994, 1995; Greeno, 1994). According to Richard Clarke, chairman and chief executive officer of Pacific Gas and Electric Company:

Environmental challenges are no different from other business challenges that result from a change in the business environment, such as the quickening global economy, a shrinking labour pool or changing technology. We need a farsighted program and innovative, creative solutions to address the environmental challenge (Clarke, 1994, p. 38).

This view is supported by Bruce Smart of World Resources Institute, who states that just as, it is not easy to anticipate markets, technologies or social trends, it might not be easy to go green but environment is increasingly becoming an important component of business decision making (Smart, 1994).

Thus while the debate about the benefits of going green continues many businesses are gearing up to treat environmental challenges as being no different from other challenges of managing a business (Clarke, 1994; Greeno, 1994; Wells, 1994). More importantly, however businesses are also starting to recognise that reconciliation is not a choice. The survival of businesses is ultimately dependent on the maintenance and protection of the natural environment (Clarke, 1994; Hawken, 1993; Holliday et al., 2002; Schmidheiny, 1992).

The next chapter provides a detailed discussion of the extant literature on corporate environmentalism.

CHAPTER 3

REVIEW OF LITERATURE

Summary

This chapter reviews the extant literature on corporate environmentalism. It commences with a discussion of the seminal research which first stressed the need to include environmental discourse into modern management and organizational theories. Next, based on the existing literature, a definition of corporate environmentalism is developed. Important studies on corporate environmentalism are then grouped into themes. This aids the review of the existing literature and also brings out the gaps in knowledge which this research intends to examine.

3.1 Greening of Management Theory

As discussed in the previous chapter many major business organizations had started to include environmental concerns into their decision making by the early nineties. However even well into the nineties the organizational and management literature continued to ignore the constraints being imposed on businesses by the changes occurring in the natural environment (Gladwin et al., 1995; Hart, 1995; Shrivastava, 1994, 1995a). Shrivastava (1994) uses the metaphor of "castration" to illustrate this disassociation between management theories and the natural environment. He stresses the need to reconceptualise organizational knowledge so that management theories can better address the challenges that have arisen as a result of changes in the natural environment. The need to associate management and organizational studies with the environmental discourse has also been very effectively captured in this quote from Gladwin et al., (1995, p. 875)

Most management theorizing and research continues to proceed as if organizations lack biophysical foundations. (But) quite simply put, how many organizations could exist in the absence of oxygen production, fresh water supply, or fertile soil?

Though theoretical and empirical work on corporate environmentalism was largely absent from most management journals until the early nineties (appearing in less than .003 percent of the abstracts of articles contained in the ABI/ Inform database), (Gladwin et al., 1995), by the mid nineties scholars were however starting to recognize that competitive advantage in the coming decades would arise from strategies based on environmental resources and capabilities (Gladwin et al., 1995; Hart, 1995, 1997; King, 1995; Porter, 1991; Porter & Linde, 1995a, 1995b; Shrivastava, 1995a, 1995b, 1995c; Starik & Rands, 1995; Stead & Stead, 2000).

However to be able to address the organizational changes resulting due to the pressures imposed by the natural environment, management theorists needed to revisit the prevailing 'technocentric' paradigm (enlightened engineering) which has long formed the basis of (and arguably constrained) much of conventional management theorising (Gladwin et al., 1995; Hart, 1995; King, 1995; Shrivastava, 1994; Starik & Rands, 1995; Welford, 1997). The technocentric paradigm assumes that there are limitless resources because of human ingenuity in exploiting the resources or in being able to find alternatives if shortages arise (Gladwin et al., 1995); it thus advocates unhindered growth. What it fails to take into account is the current scientific knowledge about limits to Earth's resources and carrying capacity. Nor does it consider the irreversibilities associated with the loss of natural capital or the interdependence between human capital and natural capital (Gladwin et al., 1995; Hart, 1995; Shrivastava, 1994). Given the apparent limitations of the technocentric paradigm, some scholars have advocated the adoption of an 'ecocentric paradigm', which is based on the belief that humans are a part of the complex web of life (Devall & Sessions, 1985). According

to this paradigm the Earth is a self regulating mechanism (Lovelock, 1995) and nature has an intrinsic value independent of human values (Leopold, 1949). Ecocentrism advocates a return to a pristine relationship with nature (Gladwin et al., 1995). However this paradigm also falls short and cannot be accepted as practical since it diminishes the fact that, due to evolutionary mechanisms and social, cultural and technological changes, humans have come to occupy a unique ecological place (Gladwin et al., 1995). Human distinctiveness cannot now be dismissed and there is almost certainly no turning back of the clock to revert to a once primordial relationship with nature.

The 'sustaincentric' paradigm

The need therefore is for a holistic and a balanced paradigm. Such a paradigm should address both the necessity of economic development and also the consequences of unabated economic growth. In response to this call, Gladwin et al., (1995) suggest the 'sustaincentric' paradigm. According to this paradigm *humans are neither totally disengaged from nor totally immersed in the rest of nature* (Gladwin et al., 1995, p. 890). The sustaincentric paradigm incorporates the fact that economic activities are inextricably linked with natural support systems. Organizations both cause and are affected by climate change, resource scarcity and biodiversity loss. According to the sustaincentric paradigm management theorising must be based on the currently more realistic premises of social and biophysical limits confronting organizations. Moreover, according to the proponents of the sustaincentric paradigm, since businesses have become arguably, the most powerful and predominant institutions in the (post) modern world, they have a moral and an ethical responsibility to work towards ecological and social sustainability (Hawken, 1993). The sustaincentric paradigm thus seeks to redefine the role of organizations to incorporate the 'triad' of sustainability: economy, ecology and ethics (Gladwin et al., 1995). The sustaincentric paradigm is now widely

accepted and guides most management research that seeks to examine organizations and the natural environment (e.g. Andersson & Bateman, 2000; Aragon-Correa, 1998; Banerjee, 2002; Bansal, 2005; Bansal & Roth, 2000; Egri & Herman, 2000; Hoffman, 1999; Sharma, 2000, 2001; Sharma & Henriques, 2005; Sharma & Vredenburg, 1998)

3.2 Defining Corporate Environmentalism

Drawing from the literature on corporate environmental practices (Dunphy et al., 2007; Gladwin et al., 1995; Hart, 1995; Shrivastava, 1995c) and based on the previous definitions (Banerjee, 2002; Menguc & Ozanne, 2005; Menon & Menon, 1997; Miles & Munilla, 1993) corporate environmentalism in this research is defined as:

> *The recognition of the importance of the natural environment by business organisations and its integration into strategic decision making.*

This definition includes both compliance based environmental responsiveness and also extends to voluntary initiatives such as environment management systems, product stewardship and a commitment to sustainable development. Accordingly organizations that are environmentally responsive will comply with the environmental regulations and will also exhibit some or all of the following criteria such as: having a written environmental plan, communicating this plan to stakeholders, rewarding environmental performance, conducting regular environmental audits, having top management support for environmental issues and encouraging employee environmental training (Henriques & Sadorsky, 1999; Menguc & Ozanne, 2005).

These organizations will also try to integrate environmental issues into strategic planning process. Among the strategic actions influenced by environmental concerns are decisions such as new product development, product market development, location of new manufacturing plants, increased R and D investments, technology development in pollution prevention and

waste management, and changes in product and process design (Banerjee, 2002; Dunphy et al., 2007; Hart, 1995). This definition of corporate environmentalism was used as a basis to select organizations in this study.

3.3 Major Themes in Extant Literature on Corporate Environmentalism

This section reviews the extant research on corporate environmentalism. The objective of this review is to provide an insight into the existing research and also to determine the gaps. To assist a comprehensive review the studies have been grouped into two major themes:

1. Corporate environmentalism and effect on firm performance
2. Organizational characteristics and corporate environmentalism

The literature in the first theme weaves together studies dealing with the determinants of corporate environmentalism, and the effect of corporate environmentalism on firm performance. The second theme brings together studies which examine how organizational characteristics such as size, visibility, multinational ownership etc influence the adoption of corporate environmentalism. Together the two themes cover the major studies dealing with corporate environmentalism.

3.3.1 Theme 1: Corporate environmentalism and effect on firm performance

As discussed at the start of this chapter a significant body of literature has developed around the need to include socio environmental concerns into business decision making. This stream of literature seeks to redefine the role of businesses to include environmental concerns (Benn et al., 2004, 2006; Dunphy et al., 2007; Gladwin et al., 1995; Hart, 1995, 1997; King, 1995; Shrivastava, 1994, 1995a, 1995b, 1995c; Starik & Rands, 1995; Stead & Stead, 2000). Other scholars have however warned that integration of environmental concerns can be economically detrimental for the firm and may result in loss of competitiveness (Walley &

Whitehead, 1994). Writers supporting this view point advocate strict cost benefit analysis of environmental investments (Palmer et al., 1995; Walley & Whitehead, 1994). This leads to a question that interests both academicians and practitioners: what is the effect of corporate environmentalism on firm performance? Since corporate environmentalism incorporates both compliance with regulations and adoption of strategies that extend beyond regulatory compliance, therefore this discussion is further divided into the following two sub themes:

1. compliance with environmental regulations and effect on firm performance
2. environmental investments beyond regulations and effect on firm performance

Environmental regulations and firm performance

Environmental regulations have been cited to be one of the most important drivers of corporate environmentalism (Bansal & Roth, 2000; Henriques & Sadorsky, 1996; Springett, 2003). Porter (1991) and Porter and van der Linde (1995a; 1995b) contend that stringent and well designed regulations which aim at outcomes and not methods can trigger process and product innovations. This can result in cost savings and first mover advantages. This contention has been theoretically (Palmer et al., 1995; Rugman & Verbeke, 1998a, 1998b; Walley & Whitehead, 1994) and empirically (Jaffe & Palmer, 1997; Jaffe, Peterson, Portney, & Stavins, 1995) challenged. The results of these empirical studies have however been inconclusive. Jaffe et al (1995) could not find support for the hypothesis that environmental regulations have had adverse effect on competitiveness. In a subsequent study Jaffe & Palmer (1997) found that environmental regulations do lead to an increase in R& D, however they did not find evidence of increase in inventive output. Though these empirical studies have been inconclusive about the effect of environmental regulations on competitiveness other studies have found support for Porter's hypothesis. Dean & Brown's (1995) study of 306 US manufacturing industries found that environmental regulations confer competitive advantage

to incumbent firms by raising barriers for newer firms. Nehrt (1996) in a study of 50 paper and pulp manufacturers in eight countries found that stringent environmental regulations lead to earlier investments in pollution control, resulting in better financial performance. Majumdar & Marcus's (2001) examination of 150 electric utilities concluded that well designed environmental regulations had a positive productivity impact. Thus there appear to be at least partial empirical support in the literature for Porter's contention that well designed and stringent environmental regulations can lead to firm competitiveness especially through cost savings and first mover advantages.

Environmental responsiveness beyond regulations and firm performance

Compliance with regulations however is only an initial stage (Berry & Rondinelli, 1998; Dunphy et al., 2007; Hunt & Auster, 1990; Marrewijk & Werre, 2003; Roome, 1992). While legitimacy gained through compliance with regulations is an important driver, concerns for competitiveness and value driven ecological responsibility (Bansal & Roth, 2000; Collins, Lawrence, Pavlovich et al., 2007; Collins, Lawrence, & Roper, 2007) also lead organizations to voluntarily adopt proactive environmental strategies which may extend beyond mandatory compliance (Prakash, 2001). Environmental strategies beyond regulation can include attempts at self regulation. Self regulation refers to a firm's adoption of environmental policies or performance standards that exceed the requirements of government regulations (Christmann, 2004, p. 747). At the firm level it can involve the adoption of voluntary environmental initiatives such as ISO 14001 (Christmann & Taylor, 2001; King, Lenox, & Teralaak, 2005; Prakash, 1999; Stoeckl, 2004). In addition self regulation at industry level includes programmes such as the chemical industry's "Responsible Care" which is a voluntary attempt to deal with the environmental issues in the chemical industry (King & Lenox, 2000; Prakash, 1999). Other instruments of self regulation include but are not limited to voluntary

environmental initiatives prescribed by Business Charter for Sustainable Development, Eco Management and Audit Scheme (EMAS), Eco labels, United Nations Global Compact, Forest Product Certification (FSC), CERES principles and the Global Reporting Initiative (GRI) (Christmann & Taylor, 2002).

Hart (1995) suggests that environmental investments that go beyond regulatory dictates of pollution control are also an opportunity to gain competitive advantage. Hart's assumptions are based on insights drawn from the natural resource based view (NRBV). The NRBV is an extension of the resource based view (Barney, 1991; Collis & Montgomery, 1995; Conner, 1991; Grant, 1991; Teece, 1986; Wernerfelt, 1984). The NRBV states that firms possessing, valuable, rare, non substitutable, tacit and socially complex resources can develop strategic capabilities in strategies such as pollution prevention, product stewardship and sustainable development. These strategies can lead to competitive advantage (lower costs, pre-empt competition, and secure future position). This view is empirically supported by a number of studies which have found a positive relationship between development of higher order environmental capabilities and improved firm performance which has been measured as profitability (Hart & Ahuja, 1996; Menguc & Ozanne, 2005; Russo & Fouts, 1997), market valuation (Klassen & McLaughlin, 1996), market share (Menguc & Ozanne, 2005), and manufacturing performance (Klassen & Whybark, 1999). Thus higher order environmental performance it seems can lead to improved firm performance. The relationship however, seems to extend further. Sharma & Vrendenburg (1998) empirically demonstrated that firms which adopt proactive responsiveness to environmental issues develop unique organizational capabilities which in turn lead to increased competitiveness. Additionally the benefits of improved environmental performance also extend to a decrease in unsystematic stock market risk (Bansal & Clelland, 2004) and a reduction in the cost of equity capital (Sharfman &

Fernando, 2008). There thus appears to be strong empirical support for the idea that being environmentally responsible enhances competitiveness.

However Christmann (2000) strikes a note of caution; not all firms might be able to create competitive advantage from implementing environmentally responsible strategies. The relationship between environmental practices and competitiveness is moderated by complementary assets (Christmann, 2000). Complementary assets are resources that are required to capture the benefits associated with a strategy, a technology or an innovation (Teece, 1986). Thus for example in order to be able to benefit profitably from new product development, a firm needs access to favourable complementary resources such as manufacturing and distribution facilities. The new product will be unable to confer competitive advantage in absence of these complementary assets. Furthermore if a firm can ensure the inimitability of these complementary assets it further entrenches the resultant competitive advantage (Christmann, 2000).

In conclusion while evidence suggests that environmental practices (arising both out of regulatory compliance and resource based capabilities) can confer competitive advantage, firms however need to develop commensurate complementary assets to be able to fully harness these competitive advantages.

3.3.2 Theme 2: Organizational characteristics and corporate environmentalism

A second theme emerging out of the review of extant literature focuses on how organizational characteristics such as organizational propensity for proactivity, managerial interpretations of environmental issues, size, visibility, organization structure, etc affect the adoption of environmental practices.

Organizational proactivity and managerial interpretations of environmental issues

Aragon-Correa (1998) found that organizations that are strategically proactive have more advanced approaches to the natural environment than their competitors with less proactive business strategies. This is supported by Sharma's (2000) study of 99 firms in the Canadian oil and gas industry. Drawing on the strategic issue interpretation literature Sharma concludes that managers who interpret environmental issues as opportunities have a more proactive stance towards adoption of voluntary environmental initiatives. Conversely managers who view environmental issues as threats are more likely to stick to conformance strategies. In a study regarding managerial perceptions of stakeholder importance, Henriques & Sadorsky, (1999) concluded that firms with more proactive profiles differ from less environmentally committed firms in managerial perceptions of the relative importance of different stakeholders. Managers in proactive firms regard community stakeholders as more important while managers in less environmentally committed firms are mostly concerned with regulatory stakeholders (Henriques & Sadorsky, 1999). Managerial interpretations of environmental issues are thus constrained by organizational contexts (Egri & Herman, 2000; Sharma, 2000). Consequently the ability of managers to successfully champion environmental issues depends not only on managerial traits such as capability for environmental scanning, employing appropriate framing dimensions and presentation styles, but also on the strength of the organization's environmental paradigm (Andersson & Bateman, 2000). The importance of organizational context in influencing managerial interpretations is further underlined by Cordano & Frieze (2000). Using Ajzen's theory of planned behaviour (Ajzen, 1991) they concluded that while managerial characteristics such as attitudes towards pollution prevention influence the implementation of pollution prevention activities, it also depends on organizational factors such as perceived support from top management and past (negative or positive) organizational experience with proactive environmental activities. Furthermore

organizations with leaders who are ecocentric and open to change are more likely to be environmental frontrunners (Benn et al., 2004, 2006; Dunphy et al., 2007; Egri & Herman, 2000; Shrivastava, 1995a). Organizations with such leaders at the helm provide the much needed top management support which is necessary for the development of a shared vision for environmental commitment (Andersson & Bateman, 2000; Cordano & Frieze, 2000; Dunphy et al., 2007; Egri & Herman, 2000; Sharma, 2000). Such a shared vision provides the appropriate organizational context in which managerial values and beliefs (Collins, Lawrence, Pavlovich et al., 2007; Collins, Lawrence, & Roper, 2007; Lawrence et al., 2006) can proactively influence organizational response to environmental challenges (Sharma, 2000).

Size

Empirical studies suggest that larger organizations are more likely to adopt proactive environmental practices (Arora & Cason, 1995; Collins, Lawrence, Pavlovich et al., 2007; Darnall et al., 2006; Lawrence et al., 2006; Sharma & Henriques, 2005; Sharma & Vredenburg, 1998). This may be because larger organizations are more visible (Bowen, 2000) and consequently face greater stakeholder pressure to be environmentally responsible (Dunphy et al., 2007). The second reason could be that larger organizations have more resources (Sharma & Vredenburg, 1998) and thereby have more discretionary slack available for environmental proactivity (Bowen & Sharma, 2005; Sharma, 2000). Small and medium enterprises (SMEs) are deemed as being neither willing and nor having the resources required for environmental proactivity (Sharma & Vredenburg, 1998). While lack of visibility and organizational slack resources may partly explain the poor environmental performance of SME's, other factors such as lack of institutional framework (Revell & Rutherfoord, 2003) and also the lack of awareness of and empathy with regulations (Petts, Herd, Gerrard, & Horne, 1999) further hinders the adoption of environmental responsiveness by SME's. Recent

research into drivers of environmental responsiveness indicates that value and beliefs of managers, rather than external drivers, are more significant drivers of environmentalism, especially in SMEs (Collins, Lawrence, Pavlovich et al., 2007; Collins, Lawrence, & Roper, 2007; Lawrence et al., 2006).

Environment management structure

In addition to organizational proactivity and size, the environmental management structure adopted by an organization also has the capacity to shape the conception and implementation of environmental strategy (Atkinson, Schaefer, & Viney, 2000). While there is no one best environmental management structure that can be prescribed, it appears that environmental structures which can maintain the balance between the need for centralization (so that the environmental group can have an overview of the entire organization's environmental impact) and decentralization (so that each operational unit is able to develop the appropriate environmental response to its unique impact) is an effective structure (Atkinson et al., 2000).

3.4 Addressing the Gap: The Developing Country Perspective

The above discussion indicates that there is a well developed body of literature on corporate environmentalism in terms of both theoretical and empirical sophistication. However the majority of the current literature is in the context of the developed countries. The developing countries, where the next round of massive industrialization is under way (Hart, 1997) is mostly absent from this conversation. The political, economic, social and technological differences that exist between developing and developed countries suggest that the reality of corporate environmentalism is very different in developing countries (D'Souza & Peretiatko, 2002; Dasgupta et al., 1997; Dasgupta et al., 1995; Jeswani et al., 2008; Nair & Menon, in press; Rock, 2002; Stuligross, 1999). The determinants of corporate environmentalism are

thus expected to differ between the developed nations and the developing countries. However the limited number of studies that have explored corporate environmentalism in developing countries have not specifically or fully addressed the determinants of corporate environmentalism. As an example, Pradhan & Barik (1999) have examined the environment friendly behaviour in pulp and paper industry in a developing country but have focussed only on competitiveness as a driver.

A major focus of studies dealing with corporate environmentalism in developing countries has been on examining the environmental improvements occurring in third world enterprises as a result of linkages with multinationals (Christmann, 2004; Christmann & Taylor, 2001, 2006; Hansen, 2003; Jeppesen & Hansen, 2004; Ruud, 2002; UNCTAD, 2002). The overall conclusion reached by the above group of studies is that linkage with multinationals improves the environmental performance of firms in developing countries. However the evidence for this is not unequivocal. Other studies have found no relationship between multinational ownership and improved environmental performance in developing countries (Hartman et al., 1997; Hettige et al., 1996).

Both the supporting and the conflicting studies are constrained by methodological limitations. For example, Christmann and Taylor (2001) examine the determinants of ISO 14001 (which is only one aspect of the repertoire of activities constituting corporate environmentalism) adoption in China. However, only 12 of the 101 firm in the sample actually had ISO 14001 certification. The determinants for the rest of the 89 firms were based on the likelihood of adoption. Furthermore in a subsequent study Christmann & Taylor (2006) re-examine the symbolic versus substantive implementation of ISO 14001 in Chinese firms. But the actual measure used is ISO 9000 (as a proxy for ISO14000). ISO 9000 is a quality management

standard and does not address environmental responsiveness issues which the above research purports to measure.

Similarly a closer examination of the studies with conflicting evidence also brings out some discrepancies. Thus although the study by Hettige et al. (1996) concludes that there is no relationship between multinational linkage and environmental improvement, however the environmental performance of multinationals in their study was actually observed to be 25% higher than privately owned enterprises (p. 1902). They attribute this improved environmental performance to better plant processes and not to multinational ownership per se. However, it has not been further examined if the improved plant processes were a result of multinational policies. In another study by Hartman et al. (1997) spanning four countries, only four of the 26 firms were multinationals. Apart from the limited number of multinationals in the study, the distribution of MNC's does not appear to be representative (no multinational in one country; two in another and one in each of the remaining two). Considering that the analysis involved quantitative examination of the hypothesis, (through determining correlation and regression analysis) a sample consisting of four multinationals in three countries as a basis of the results appears insufficiently representative.

Thus the one theme that has dominated the literature on corporate environmentalism in developing countries has conflicting results. Neither do the studies specifically address the underlying question of what drives corporate environmentalism in developing countries. This study addresses this gap. It examines the determinants of corporate environmentalism in developing countries. Furthermore it also re-examines the determinants of corporate environmentalism in a developed country setting. This facilitates a comparative analysis of the factors that drive corporate environmentalism in developing and developed countries.

The next chapter describes the theoretical framework that guides this study.

CHAPTER 4

CONCEPTUAL BACKGROUND

Summary

The objective of this chapter is to provide a theoretical framework for guiding the qualitative enquiry in this research. Perspectives from stakeholder theory, resource dependence theory, institutional theory and resource based theory provide the conceptual background. The conceptual background is then used to develop a series of specific research questions based on the central research question.

The review of literature in the previous chapter identified a knowledge gap pertaining to corporate environmentalism in developing countries. This study contributes towards narrowing this gap through comparatively exploring the drivers of corporate environmentalism in developing and developed countries. The current chapter draws upon the stakeholder, resource dependence, institutional, and resource based theories to build a theoretical framework for this study. Insights gained from these theoretical perspectives will be used to develop a series of specific research questions to guide the qualitative enquiry into the drivers of corporate environmentalism in developing and developed countries.

It is pertinent to point out here that in a qualitative study, inquirers state research questions, unlike in a quantitative study where it is common to state objectives or hypothesis (Creswell, 2003; Eisenhardt, 1989a, 1991; Eisenhardt & Graebner, 2007; Miles & Huberman, 1994). Miles and Huberman (1994) and Creswell (2003) recommend that a qualitative study (even the ones that are highly inductive) should start with a theoretical rationale which provides the framework for one or two central questions followed by five to seven sub-questions. These

questions subsequently become the topics that are explored in interviews or observations. This approach narrows the focus of the study while leaving the questioning open (Creswell, 2003).

In this study the central research question followed from the review of literature and the sub questions have been guided by the theoretical perspectives from the stakeholder, resource dependence, institutional and resource based theories. The strength of the conceptual framework used in this research is that it draws upon four distinct theories, each of which when considered in isolation is helpful but not fully adequate to provide a theoretical foundation for examining the drivers of corporate environmentalism. The combined perspectives from all four can however be used to develop a holistic framework to guide this research enquiry (see Table 4.1).

Table 4.1 Summary of theoretical frameworks used in this study

Theoretical perspective	Contribution to framework	Issues the theory does not address
Stakeholder theory	Pressure from environmental stakeholders can contribute towards corporate environmental responsiveness.	Who amongst the wide range of environmental stakeholders will be considered important?
Resource dependence theory	Stakeholder salience can in part be explained on the basis of a firm's dependence on stakeholders for critical external resources.	Firms however compete not only for resources but also for legitimacy. Resource dependence does not explain legitimacy based reasons.
Institutional theory	Explains how desire for social legitimacy leads firms to conform to institutionalized environmental norms.	Does not explain why firms facing similar institutional pressures differ in their environmental strategies.
Resource based theory	Focuses on the role of internal resources of a firm as a source for differentiating environmental strategies.	The combined perspectives from the above four theoretical perspectives provide a holistic explanation of the internal resource based dynamics and external institutional and resource dependence factors.

4.1 Stakeholder Theory

Although the term stakeholder first appeared by name in an internal memorandum at the Stanford Research Institute in 1963 (Freeman & Reed, 1983), the concept itself can be traced back to Barnard's Functions *of the Executive* (1938). It is however Freeman's work both individually (1984; 1994; 1999) and with colleagues (Freeman & Evan, 1990; Freeman & Reed, 1983; Harrison & Freeman, 1999) which can be credited with moving the stakeholder concept to the forefront of academic and managerial thinking. Freeman in his classic book *Strategic Management: A Stakeholder Approach* (1984, p. 46) defines stakeholders as "any group or individual who can affect or is affected by the achievement of the organization's objectives". It is reported that since the publication of Freeman's book more than 170[1] articles dealing with the stakeholder concept have appeared and a diagram representing stakeholder-organization interactions has become a standard element of management textbooks (Donaldson & Preston, 1995). Stakeholder theory has now developed from being "a handmaiden logic" (Rowley, 1997, p. 888) to an overarching theory of the firm that "explains and guides the structure and operation of the established corporation" (Donaldson & Preston, 1995, p. 70).

Stakeholder theory has been justified as a theory of the firm on the basis of its descriptive accuracy, instrumental power and normative validity, (Donaldson & Preston, 1995). The three aspects of stakeholder theory are not however mutually exclusive but are nested within each other (see Figure 4.1). The external shell is the *descriptive* aspect which is used to describe and explain the relationship between the firm and the stakeholders as observed in the real world. The next level is the *instrumental* justification according to which stakeholder management might (or might not) result in certain ends (e.g. profitability). The central core of

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[1] 100 as reported in Donaldson and Preston (1995) and more than 70 after 1995 as counted by this author in 2007

the theory however is *normative* and states that stakeholders have an intrinsic value based on moral and philosophical principles (Donaldson & Preston, 1995).
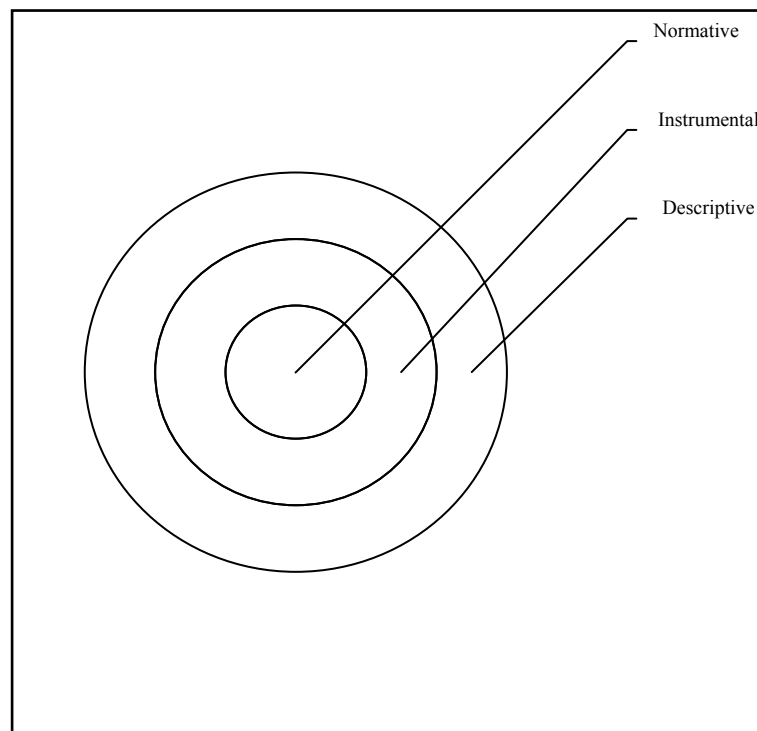
**Figure 4.1 The three aspects of stakeholder theory
(adapted from Donaldson & Preston, 1995)**

In attempting to provide greater coherence to Donaldson and Preston's (1995) typology Jones and Wicks (1999) have proposed a framework which unifies the instrumental and the normative aspects into one hybrid theory, while dismissing the descriptive component. Freeman (1999) however deems all of these typologies as unnecessary. His thesis is that stakeholder theory is built solely on instrumental perspectives (Freeman, 1999). Stakeholder theory, according to Freeman (1999, p. 234) "is a purely pragmatic concept". Organizations respond to stakeholders to achieve desired ends. This is supported by Jones (1995) who used perspectives from ethics and economics to argue that moral propriety can actually be traced to instrumental roots (e.g. values such as honesty and trust are adopted because they can reduce the significant costs associated with opportunism). An empirical examination of the top 100

firms in the Fortune 500 list by Berman, Wicks, Kotha and Jones (1999) provided supported only for the instrumental model. They found no support for the normative model.

4.1.1 Stakeholder theory and corporate environmentalism

The stakeholder theory of the firm (especially the instrumental aspects) can thus be used to explain and predict how organizations operate under stakeholder influences. Applying the instrumental aspects of stakeholder theory (Freeman, 1999; Jones, 1995) to corporate environmental management can therefore provide useful insights into how firms might respond to pressures from stakeholders so as to achieve desired objectives (e.g. firms might be environmentally responsible to increase their customer base). Perspectives from stakeholder theory thus suggest that organizations in developing and developed countries may be driven to be environmentally responsible due to pressures from stakeholders. Environmental stakeholders can include but are not limited to customers, consumers, competitors, legal systems, employees, financial institutions, communities, governments, environmental interest groups, media, shareholders, political groups, trade associations, unions, customer advocacy groups, suppliers and the scientific community (Freeman, 1984; Henriques & Sadorsky, 1999; Polonsky, 1995). The above discussion appears to indicate that the drivers of corporate environmentalism can be theoretically grounded in stakeholder theory (see Figure 4.2). However while stakeholder theory provides a starting point for conducting an enquiry into the drivers of corporate environmentalism, the sheer inclusiveness of stakeholder theory makes it difficult to determine which stakeholders, amongst the vast quagmire of possible stakeholders will actually be important in influencing a business organization's environmental responsiveness. Going by Freeman's (1984) definition (can affect or be affected by); virtually
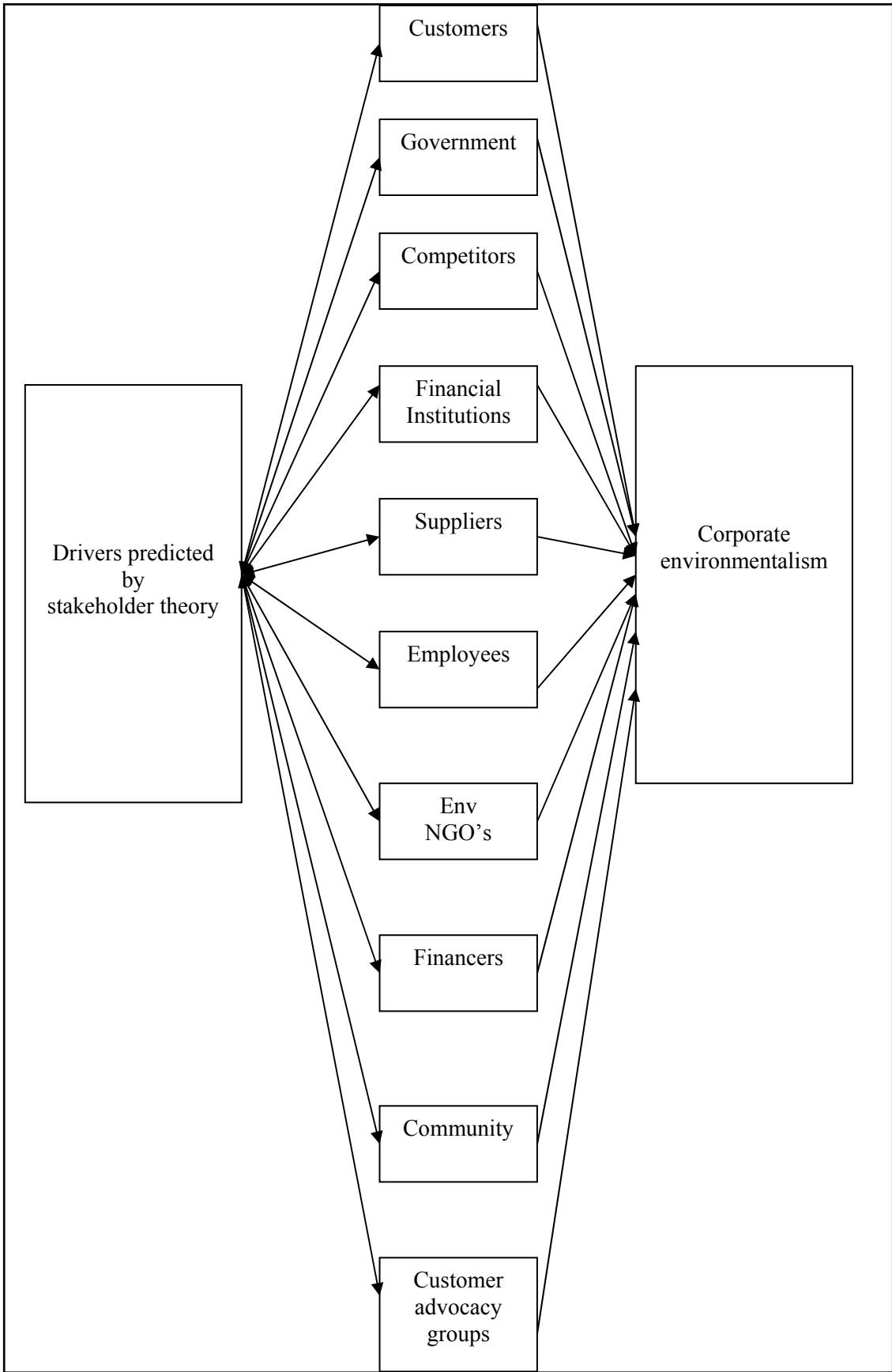
Figure 4.2 Drivers of corporate environmentalism as suggested by stakeholder theory

anyone or group can be a stakeholder (Mitchell, Agle, & Wood, 1997). Using the above logic Stead and Stead (2000) argue that planet Earth, trees and the natural environment are all legitimate stakeholders whose interests should be considered by managers while decision making. In an attempt to resolve the issue of "who or what really counts" (Freeman, 1994, p. 411) efforts have been made to classify stakeholders as primary and secondary based on their importance to the organizations (Clarkson, 1995).

Primary stakeholders are those whose support is essential for the survival of an organization, e.g. customers, government etc. Secondary stakeholders can affect or be affected by an organization but are not essential for the survival of an organization, e.g. media, special interest groups (Clarkson, 1995). However this method of classifying stakeholder importance, though it has been used by researchers (Eesley & Lenox, 2006) may not be particularly useful. This is because stakeholder attributes are neither in a steady state nor are they an objective reality; stakeholder attributes instead are socially constructed and are variable (Mitchell et al., 1997). Stakeholder importance is thus transitory and is subject to change. Pressures from stakeholders who were considered secondary in the past (such as media, environmental groups and scientific agencies like the IPCC) have now become significant catalysts for environmental change in many organizations (Eesley & Lenox, 2006; Sharma & Henriques, 2005).

Adding to the complexity of "who or what really counts" is the issue that although traditionally the stakeholder- organization interactions have been represented as a simplistic "hub and spoke model" (see Figure 4.3) involving dyadic ties between the focal organization and each of the stakeholders, this conceptualization is however not a very accurate depiction. Firms in reality respond to multiple stakeholder influences (Rowley, 1997). These multiple

stakeholders can furthermore be involved in complex interactions with each other. Applying

social network analysis to stakeholder theory, Rowley (1997) proposed that the stakeholder-

organization interactions are better depicted as being embedded in networks (see Figure 4.4).
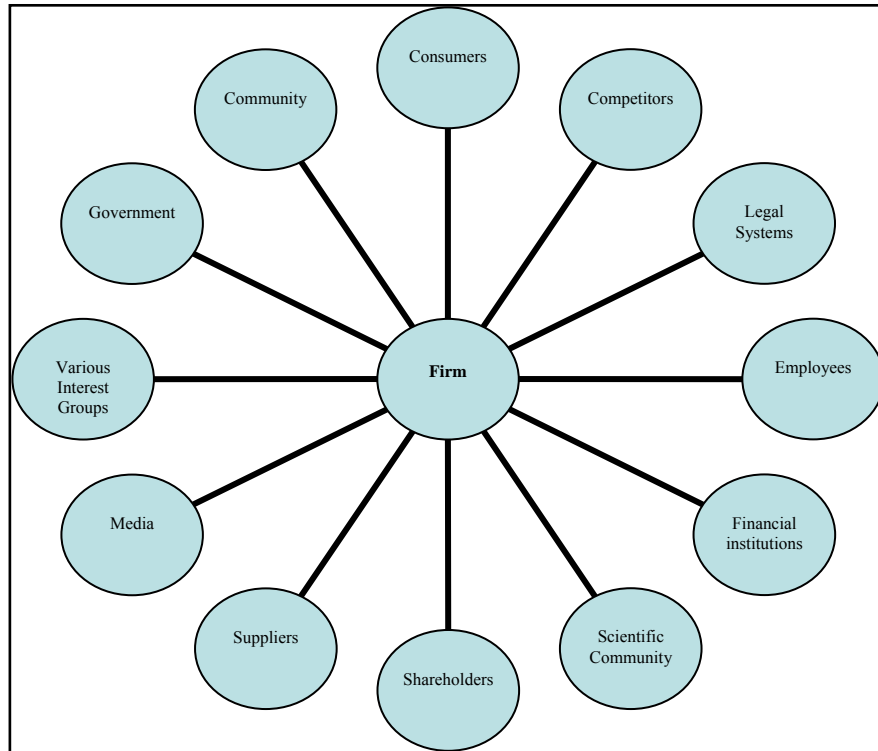
Figure 4.3 Dyadic depiction of a firm and environmental stakeholders
(adapted from Freeman, 1984, p 55)
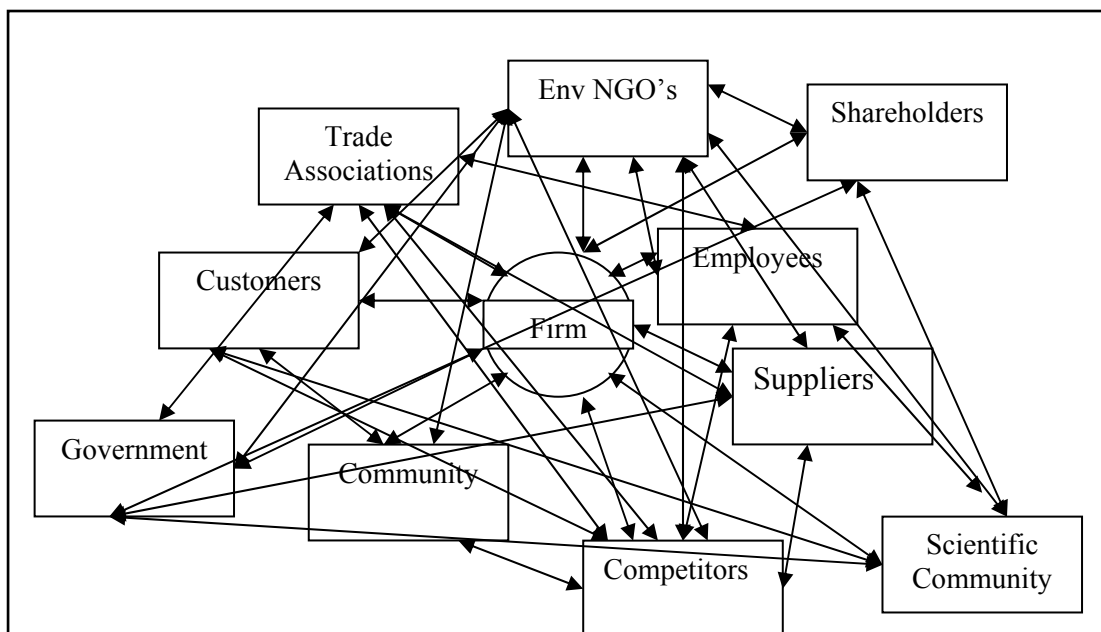
Figure 4.4 Network depiction of firm stakeholder inter relationship
(based on Rowley, 1997)

Organizations in actuality are thus confronted with simultaneous influences from multiple stakeholders who might also be interacting with each other (Rowley, 1997). This leads to complex arrays of possible influence pathways.

Thus although stakeholder theory provides a starting point for anchoring an enquiry into the drivers of corporate environmentalism, on its own it is however of limited value. Firstly it's theoretical broadness "leaves the field of possible stakeholders unambiguously open to include virtually anyone" (Mitchell et al., 1997, p. 856) and secondly the bewildering complexity arising out of trying to deal with simultaneous demands of multiple and interacting stakeholders decreases its practical efficacy.

4.2 Resource Dependence Theory

In attempting to apply a sorting logic to the complexity of stakeholder theory, Mitchell et al. (1997) proposed that stakeholders with power, legitimacy and urgency will be regarded as salient by managers of a firm. Empirical work by Agle, Mitchell and Sonnenfeld (1999) and Eesley and Lenox (2006) support Mitchell et al.'s (1997) theoretical contention. What still remains unanswered however is the process by which such stakeholders (with the requisite attributes of power, legitimacy and urgency) can be identified. Resource dependence theory (Frooman, 1999; Pfeffer & Salancik, 1978) assists in addressing this issue. According to resource dependence theory, organizations are dependent on the external environment (and hence on the stakeholders) for their resource needs (Pfeffer & Salancik, 1978). It is this dependence of firms on stakeholders for critical resources that gives stakeholders leverage over the firms. Resource dependence thus creates differentials among stakeholders; the more dependent a firm is on a stakeholder for critical resources, the greater is the extent to which that stakeholder can influence the firm's response (Pfeffer & Salancik, 1978). Based on

resource dependence dynamics of who is dependent on whom, Frooman (1999) has organized

stakeholder influences into four strategies (withholding, usage, direct and indirect) to assist

managers with determining the issue of stakeholder salience. The first two strategies

(withholding and usage) involve the extent of firm-stakeholder interdependence. A

withholding strategy will be used when stakeholders have absolute discretion over allocation

of resources. The stakeholder can walk out of the relationship with no harm to itself.

Stakeholders thus can withhold critical resources needed by a firm with the intention of

making the firm change its behaviour. One example of this is the consumer boycotts of Shell

in the 1990's involving the Brent Spar and the Ogoni controversies. The consumer boycott led

Shell to redefine its mission worldwide to include environmental and human rights concerns

(Shell, 2007a; Shell (Nigeria), 2007b). Withholding strategies can thus be used when the

balance of resource dependence favours the stakeholder. A usage strategy on the other hand is

used when there is a mutual dependence between the firm and the stakeholder (the welfare of

each is linked to the other). In a usage strategy, stakeholders therefore do not withhold

outright but attach conditions for the continued use of a resource (e.g. Mattel toys had to

attach more stringent requirements for quality control on their suppliers in China, after lead

was detected in paint used for children's toys (Mattel Toys, 2007).

The next set of strategies involves pathways (direct and indirect) used for influencing a firm.

Direct strategies are used when the stakeholder has enough influence over the firm to

manipulate the flow of resources by itself (through withholding or by usage) without

assistance from other stakeholders. For example governments can cancel the '*license to

operate'* (Elkington, 1997) or attach stringent conditions, if firms violate the conditions of

their license. Indirect influence pathways are employed when a stakeholder has little or no

control over firm resources and thus has limited influence over a firm. The stakeholder can

then choose to act through other influential stakeholders who act as allies by manipulating the flow of resources (again through withholding or usage). The purpose of adding the ally is to shift the balance of the power towards the weaker stakeholder. An example could be environmental agencies acting through mobilizing consumers to boycott products deemed as environmentally hazardous.

These four strategies result (Table 4.2) in the following matrix (Frooman, 1999)

Table 4.2 Resource dependence dynamics (based on Frooman, 1999).

Is the firm dependent on the stakeholder?	Is the stakeholder dependent on the firm?	
	Yes	No
Yes	High interdependence (direct-usage strategy) 1	Stakeholder power (direct-withholding strategy) 2
No	Firm power (indirect-usage strategy) 4	Low interdependence (indirect-withholding strategy 3

In the first scenario explained by Frooman (1999) the firm and the stakeholder have high interdependence. Under such conditions the stakeholders are likely to use a direct strategy to influence the firm's usage of resources, so as to get the firm to change its behaviour. In the second case the balance of power lies with the stakeholders. The stakeholders are therefore likely to directly withhold resources from the firm to make it acquiesce. In the third case when the firm and the stakeholder have no resource interdependence, the stakeholders can exercise indirect withholding strategies via other stakeholders, who are in a position of power vis a vis the firm. In the fourth scenario the stakeholder is dependant on the firm, but the firm has no resource dependence on the stakeholder. In such a case the firm is unlikely to concede to the direct demands of the stakeholders. So the only strategy for the stakeholder to influence the

firm is to work indirectly through other influential stakeholders who can attach conditions for access of critical resources. Thus Frooman's (1999) application of resource dependence dynamics adds considerable coherence to stakeholder theory. It specifically addresses the issue of which stakeholders will be important for a firm and also how stakeholders can operate through networking with other stakeholders.

4.2.1 Resource dependence theory and corporate environmentalism

Extending the resource based logic to corporate environmental practices therefore provides a theoretical rationale for understanding stakeholder saliency. It theoretically explains which environmental stakeholders will be considered important by a firm. It also provides a basis for understanding why "secondary" stakeholders such as environmental NGO's can become important for driving a firm's environmental responsiveness. Since the central research question that this research seeks to address is "what drives corporate environmentalism in business organizations in developing and developed countries", therefore given the above theoretical rationale this leads to the following specific research question:

Sub question 1:

Who are the stakeholders who can leverage a firm into being environmentally responsible in

a) developing countries and b) developed countries?

The first sub question is anchored in the stakeholder and the resource dependence theories and seeks to qualitatively explore and identify the stakeholders who can influence a firm into being environmentally responsible by exploiting the firm's dependence on them for critical resources.

Organizations however are not just beholden to stakeholders who control resources. As DiMaggio and Powell (1983, p. 150) point out "organizations compete not just for resources and customers but also for institutional legitimacy". Organizations as social actors thus do not always act as rational profit maximizers; their policies also result from a desire for conformance and a need to seek social approval and legitimacy (Myers & Rowan, 1977; Oliver, 1991; Scott, 1987). This desire for legitimacy has its roots in the institutional theory. The following section discusses insights from the institutional theory that further guide the enquiry into drivers of corporate environmentalism in developing and developed countries.

4.3 Institutional Theory

Institutional theory emphasizes the social context in which firms operate and explains the role of institutions in shaping organizational responses (DiMaggio & Powell, 1983; Myers & Rowan, 1977; Scott, 1987). Institutions include governments (which act through enacting regulations and imposing fines and penalties for non compliance), professional associations, media and public opinion (DiMaggio & Powell, 1983; Oliver, 1991). Institutional theory explains how pressures from these social institutions become "institutionalized" over a period of time (Oliver, 1991; Scott, 1987). Institutionalization refers to the process by which items acquire a rule like quality and become social facts which are accepted "as given" by the majority of organizations in an organizational field (Myers & Rowan, 1977). Institutional norms can thus become embedded in societal contexts and be taken for granted (Oliver, 1991; Scott, 1987). Organizations gradually start accepting these institutionalized norms as normatively sanctioned. Organizations conform to critical institutional norms, not only because they are accepted as given but also because organizations are not always seeking profit maximization, their policies also reflect external pressures for legitimacy (Myers & Rowan, 1977; Oliver, 1991; Scott, 1987). Failure to conform to critical institutional norms

can threaten the firm's legitimacy and survival (Oliver, 1997). Thus through adhering to commonly accepted and institutionalized norms organizations seek to obtain social legitimacy (DiMaggio & Powell, 1983; Oliver, 1991).

4.3.1 Institutional theory and corporate environmentalism

DiMaggio and Powell (1983) attribute the reason for certain norms gaining institutional acceptance to the tendency of organizations (in a given organizational field) to move towards isomorphism. Isomorphism results in an "inexorable push towards homogenization" (DiMaggio & Powell, 1983, p. 1480). Institutional theory thus suggests that through adopting institutionalized environmental norms (which have penetrated the social context and are seen as intractable) organizations seek social approval and legitimacy. According to DiMaggio and Powell (1983) coercive, mimetic and normative pressures push organizations towards homogenous responses. These three pressures provide a theoretical grounding for understanding legitimacy driven drivers of organizational environmental responsiveness. Coercive pressures stem from political influence. Thus the existence of a common legal environmental framework affects all organizations in a given field similarly and leads to homogeneity of organizational responses. For example under the Resource Management Act in New Zealand firms can only discharge specific types and quantities of contaminants as permitted in their resource consents (Resource Management Act, 1991). Failure to conform attracts fines and penalties and threatens the firm's social legitimacy. Coercive pressures, thus over a period of time lead to isomorphic and institutionalized responses.

Another source of isomorphism is mimetic pressure. Mimicry results when organizations operate under conditions of uncertainty. Organizations tend to mimic other more successful and legitimate organizations when there is uncertainty in the business environment. Thus uncertainty resulting from poorly understood environmental challenges is a powerful

institutional driver for isomorphism (DiMaggio & Powell, 1983). Environmental challenges are not yet fully understood by the entire spectrum of organizations (Porter & Reinhardt, 2007). Under such conditions of uncertainty (what policies and technologies should be employed, should an organization aim for leadership position on climate change or wait and watch …etc) organizations tend to model their environmental responsiveness after other organizations who are perceived to be more legitimate or successful (DiMaggio & Powell, 1983). An increasing number of multinationals thus now have environment reports, whereas only a handful of them reported on their environmental practices only a decade earlier (Rondinelli & Berry, 2000). In doing so organizations are attempting to gain legitimacy through mimicking the organizations deemed to be environmental leaders.

The third basis for isomorphism is normative pressures. The normative basis is associated with professionalization. Professionalization stems from the fact that most managers at a given level have commonalties based on similar educational qualifications and through socialization in common professional associations. This makes the managers similar, "to the point that individuals who make it to the top are virtually indistinguishable" (DiMaggio & Powell, 1983, p. 153). Moreover the mobility of managers through turnover and head hunting further ensures that these managers "drawn from the common pool of universities and filtered on a common set of attributes" (DiMaggio & Powell, 1983, p. 153) will respond to problems and policies in a similar way leading to normatively sanctioned isomorphism. In the context of environmental management, this points to the fact that in a given organizational field since most of the senior managers dealing with environmental issues might have similar educational qualifications, attend same or similar professional workshops, courses and will be members of similar professional bodies and industry associations, etc, their responses to environmental problems will be dictated by common normative guides. They will thus develop a similar

understanding of issues surrounding environment sustainability (Cramer, 2005; Jennings & Zandbergen, 1995). Thus to a certain extent professionalization leads managers to have a shared world view of socially sanctioned legitimacy and to that extent results in isomorphic responses to environmental challenges.

Institutional theory is thus helpful in explaining how consensus develops around the meaning of environment sustainability and also how shared concepts and practices related to environmental responsiveness are disseminated among organizations (Jennings & Zandbergen, 1995). Such shared environmental management practices thus become embedded in organizations through conformity and passive acceptance of institutionalized norms (Oliver, 1991). Organizations conform to these environmental norms because they are rewarded for doing so through increased legitimacy, social worthiness and increased likelihood of survival (Oliver, 1991, 1997; Scott, 1987).

Based on the above discussion on institutional theory the central research question is further specified into a second sub question

Sub question 2:

What is the role of institutions (government, professional associations, media and public opinion) in driving corporate environmentalism in developing and developed countries?

Institutional theory is helpful in explaining how certain environmental norms penetrate the social contexts. It also explains how these norms become intractable and taken for granted and the process by which organizations passively start conforming to them (Bansal, 2005; Oliver, 1997). Within an institutional framework firms however aim to "meet not exceed" (Bansal &

Clelland, 2004, p. 94) the social norms. Institutional theory therefore cannot explain the fact that organizational responses to environmental challenges are not always constrained by the "iron cage" (DiMaggio & Powell, 1983) of institutionalized norms. Research suggests that firms operating in similar social regulatory and public policy environments vary in their environmental strategies (Aragon-Correa, 1998; Hart & Ahuja, 1996; Russo & Fouts, 1997). Even in a single industrial context, where organizations face very strong and similar institutional pressures, organizational responses to environmental challenges vary from compliance to proactive environmental strategies (Delmas & Toffel, 2004; Sharma & Henriques, 2005; Sharma & Vredenburg, 1998). Thus while institutional theory explains legitimacy driven acceptance of socially sanctioned environmental norms, it does not explain why firms in a given industry facing similar institutional pressures might choose to react differently to environmental issues (Sharma & Vredenburg, 1998).

Combining perspectives from stakeholder, resource dependence and institutional theories provides a theoretical basis for understanding drivers of corporate environmentalism insofar as the drivers are explained by a firm's resource dependence or its search for legitimacy (Figure 4.5). However these three theories essentially focus on forces that lie beyond the organizational boundaries (Hoffman, 1999). They ignore the dynamics happening inside the black box; the firm. It must be pointed out here that these theories do not completely rule out internal pressures (for example, employees) but as discussed above their explanatory capabilities fall short of explaining why firms with similar kinds of employees (institutional) and with similar level of dependence on employees (resource dependence) might choose different environmental strategies. The resource based theory, with its focus on costly to copy firm specific, internal resource as factors that differentiate the strategic choices of a firm, helps explain the above dilemma.
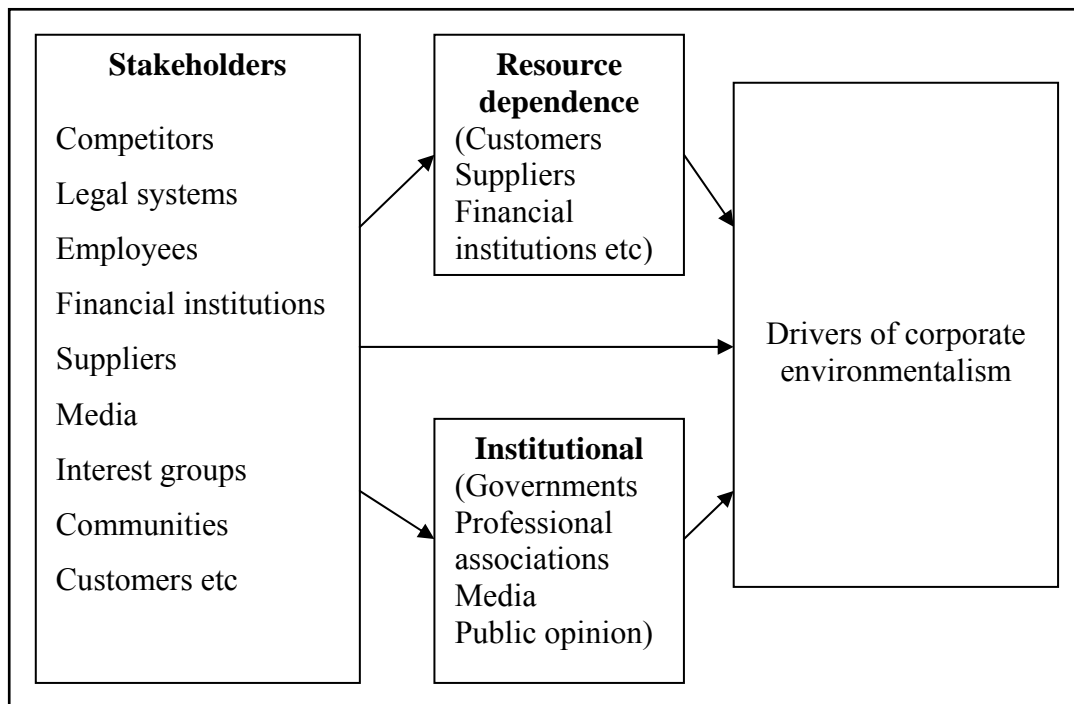
Figure 4.5 Stakeholder, institutional and resource dependence theories as frameworks for corporate environmentalism

4.4 The Resource Based Theory

The resource based theory emerged out of dissatisfaction with the traditional structure-conduct frameworks (Porter, 1980) of organizations (Grant, 1991). While these frameworks did not explicitly rule out the significance of firm specific internal attributes in contributing to firm performance, their focus essentially was on the analysis of the external business environment. These models were thus mainly concerned with how external actors (buyers, suppliers, competitors, customers etc) could influence a firm's competitive position. But by limiting the focus to external environment analysis these frameworks ignored the impact that "idiosyncratic firm attributes had on a firm's competitive position" (Barney, 1991, p. 100). Penrose's seminal work (1959) guided early resource based researchers who focussed on the valuable and inimitable internal resources of a firm as a source of securing competitive advantage (Grant, 1991; Prahalad & Hamel, 1990; Wernerfelt, 1984). However like their structure-conduct predecessors (who ignored the internal competencies of a firm); the early

theorists in the RBV field were criticized for largely ignoring the role of the external environment (Russo & Fouts, 1997). Subsequent research in the RBV has addressed this criticism (Barney, 1991, 2001; Collis & Montgomery, 1995; Conner, 1991; Oliver, 1997; Sirmon, Hitt, & Ireland, 2007; Teece, 1986). The RBV in its current form combines the analysis of resource based competencies rooted inside a firm with the external analysis of the business environment. According to (Collis & Montgomery, 1995, p. 120) "the RBV inextricably links a company's internal capabilities (what it does well) and its external environment; what the market demands and what competitors offer". Thus through combining the internal and the external analysis, the RBV offers a very useful perspective for strategic management research (Bansal, 2005; Barney, 2001; Hart, 1995; Ketchen, Hult, & Slater, 2007; Klassen & Whybark, 1999; Oliver, 1997; Russo & Fouts, 1997; Sirmon et al., 2007).

According to the RBV, resources which are valuable, rare, imperfectly imitable and non substitutable can lead to the development of internal competencies which when applied to the appropriate external environment can secure competitive advantage (Barney, 1991). According to Barney (1991) these resources can be physical resources, human capital resources and organizational resources. Physical resources include resources such as a unique geographic location, proprietary access to raw materials, patented technology etc. Human capital resources include managerial expertise and acumen (acquired due to training or experience), and also the relationships between teams. Organizational resources include formal and informal planning, controlling and coordinating systems and informal relations between groups. For these resources to be able to produce enduring value, they must be hard to copy (Barney, 1991). What makes these resources inimitable is the fact that such resources (e.g. brand reputation) are often acquired through unique historical paths and over long periods. Because advantages associated with these resources are path dependent on historical

antecedents, competitors cannot simply buy these resources in the factor market. This ensures their inimitability. Resources are also hard to copy when they are socially complex and causally ambiguous (Barney, 1991). Socially complex resources can arise out of interpersonal relationships between teams. While a particular member of the team can be weaned away from the organization, it is difficult for competitors to replicate effective teams in their entirety. Finally resources can also become inimitable due to causal ambiguity. Causal ambiguity refers to the process wherein competing firms have an incomplete understanding of the link between the complex and interdependent resources controlled by a firm and its competitive advantage. Because competitors cannot grasp this link hence they cannot copy the advantages offered by the resource (Barney, 1991). Thus while resources such as physical technology are easy to imitate, it is much harder to imitate the interpersonal skills and the organizational culture and traditions that are required to fully exploit the technology (Sirmon et al., 2007). However having valuable resources is a necessary but not a sufficient condition for securing a competitive edge. Firms have to continuously evaluate choices regarding resource employment with respect to external environment. Moreover to be able to fully harvest the resource based advantages firms also need to have access to complementary assets such as efficient distribution networks, reliable suppliers etc (Teece, 1986). Capabilities resulting from such well managed resources become the core competencies of a firm (Collis & Montgomery, 1995). It is important that firms upgrade and regularly re-examine their resources in response to changes in the external environment (changing competitor strategies, change in consumer demands etc) so that the valuable core competencies do not end up as constraining core rigidities (Collis & Montgomery, 1995; Sirmon et al., 2007).

Major transformations are now occurring in the business environment due to the constraints imposed and opportunities offered by the changes in the natural environment (Hoffman, 2007;

Porter & Reinhardt, 2007; Schwartz, 2007). Under these conditions of flux, resource and capability development in organizations is also being driven by the need to adapt to these changes in the natural environment (Porter & Reinhardt, 2007). Hart (1995) has expanded the resource based theory to include the challenges of the natural environment.

4.4.1 Natural resource based view and corporate environmentalism

The natural resource based view (NRBV) has been developed on the premise that businesses will be now increasingly constrained by natural ecosystems (Hart, 1995). According to Hart (1995, p. 991) "competitive advantage in the coming years will be rooted in capabilities that facilitate environmentally sustainable economic activity". Drawing from the resource based view Hart (1995) contends that to be able to develop a successful environmental strategy, firms need resources that are valuable, non substitutable and difficult to replicate. Environmental capabilities resulting from these resources can be difficult to replicate either because they are tacit (skill based and people intensive or accumulated through experience) or socially complex (such resources depend on large number of people or teams engaged in coordinated activity). In response to the challenges posed by the natural environment, Hart (1995) offers a range of interrelated strategies ranging from proactively decreasing pollution to a visionary commitment to sustainable development. The choice of the strategy that the firm can or will actually adopt will in turn be dependent on the resource endowments of that firm (Hart, 1995). Thus according to NRBV firms will differ in their environmental strategies depending on the disparity in the organizational resources that they can marshal. The stress in NRBV is on the significance of the internal organizational resources and characteristics in influencing corporate environmentalism. This leads to the third sub question:
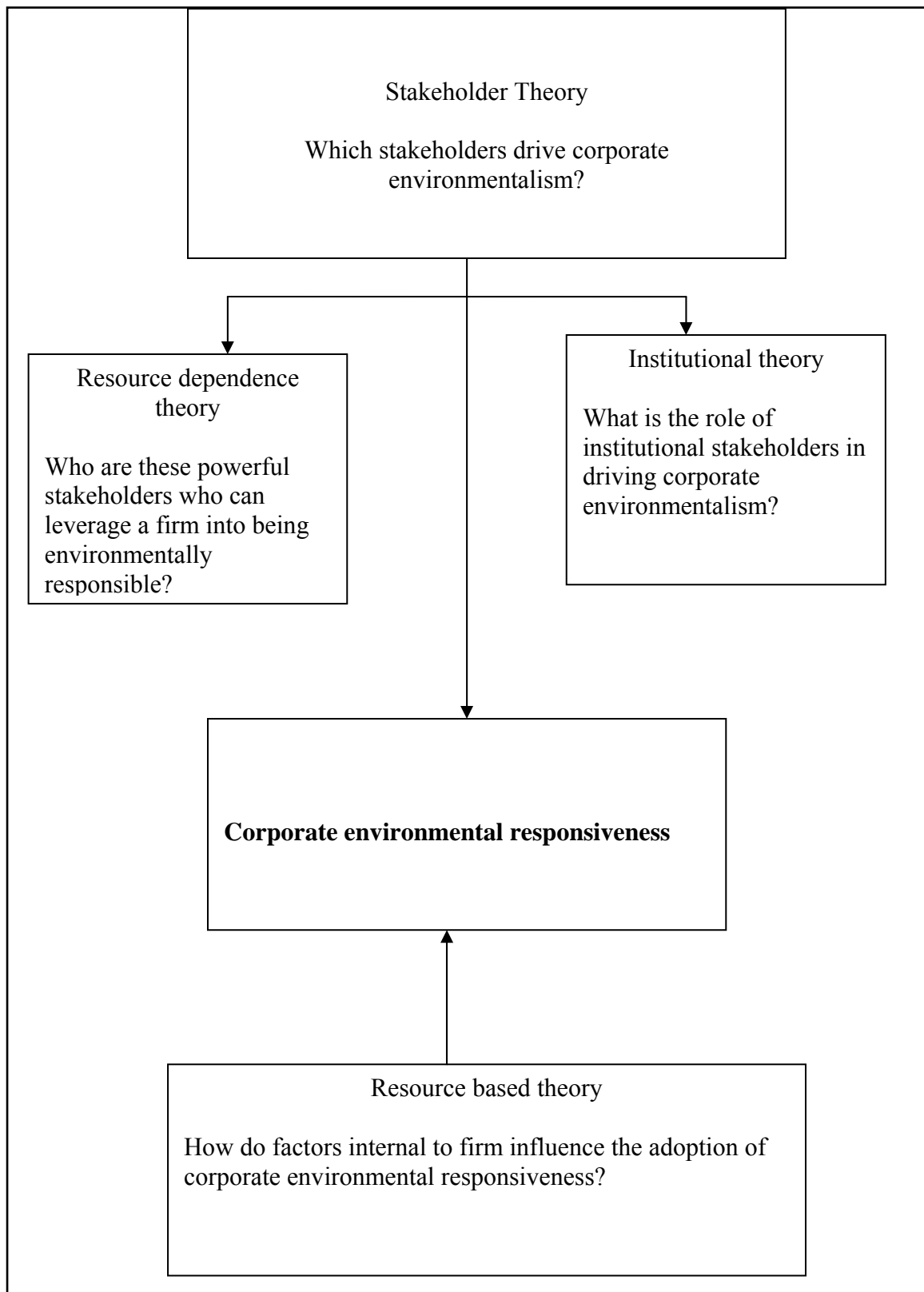
Figure 4.6 Theoretical framework used in this enquiry

Sub question 3:

What is the role of firm specific resources in influencing the adoption of corporate

environmentalism in developing and developed countries?

The third sub question thus explores the importance of internal organizational characteristics

as drivers of corporate environmentalism in developing and developed countries.

Thus combining the insights gained from the (N)RBV regarding the significance of internal

resources with the importance of the role of external stakeholder (from resource dependence

and institutional theories) allows the development of holistic framework for anchoring this

research's enquiry into the drivers of corporate environmentalism (Figure 4.6)[2]. To borrow

Porter and Reinhardt's (2007) terminology (which they use in a different context), such a

framework permits an exploration with both "inside out" (understanding the impact of firm's

resources on corporate environmentalism) and "outside in" focus (how external factors impact

a firm's corporate environmentalism).

The next chapter describes the methodology used in this research.

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[2] Theories such as Ecological Modernisation (Huber, 1982; Mol 1995) were not considered in this research because these theories examine the *broader issue of environmentalism* from a *sociological perspective* (Mol and Sonnenfeld, 2000; Mol and Spaargaren, 2000). This research however seeks to examine a specific subset of environmentalism - *corporate environmentalism* - from a *management perspective*. Ecological modernisation thus, debates the role of socio- political issues surrounding environmentalism - such as the role of capitalism (Mol and Sonnenfeld, 2000), but this research has a narrower scope. It seeks to examine drivers of corporate environmentalism from a business perspective. Management oriented theories were therefore considered to have greater relevance for this research.

Additionally, proponents of Ecological Modernisation (Mol and Sonnenfeld, 2000; Frijns, Phung and Mol, 2000) state that Ecological Modernisation is essentially Eurocentric, and has only marginal capacity for understanding environmentalism in developing countries. This further limited the applicability of perspectives from Ecological Modernisation theory for this research.

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CHAPTER 5

METHODS

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Summary

This chapter explains the rationale for using qualitative methods in this research. It then

elaborates the basis for selection of the case study method as the specific qualitative inquiry

strategy. This is followed by a discussion of the norms which are distinctive to case study

research and the careful consideration of these norms in the current study. The chapter

concludes with a discussion of the techniques used for multiple case analyses.

5.1 Rationale for Employing Qualitative Research

5.1.1 Defining qualitative research

Denzin and Lincoln (1994, p. 2) have defined qualitative research as:

> *Qualitative research is multi-method in focus, involving an interpretive naturalistic*
> *approach to its subject matter. This means that qualitative researchers study things in*
> *their natural settings, attempting to make sense of or interpret phenomena in terms of*
> *the meanings people bring to them. Qualitative research involves the studied use and*
> *collection of a variety of empirical materials; case study, personal experience,*
> *introspective, life story, interviews, observational, historical, interactional and visual*
> *texts - that describe routine and problematic moments and meanings in individuals'*
> *lives.*

The above definition is one of the most comprehensive definitions of qualitative research and

has been widely used to explain qualitative research (Creswell, 1998; Gephart, 2004; Lee,

Mitchell, & Sablynski, 1999; Miles & Huberman, 1994). Qualitative research has however

evolved since this definition was proposed (Eisenhardt & Graebner, 2007; Yin, 2003). Thus

although qualitative researchers have conventionally identified with constructivist,

participatory or advocacy perspectives, it is now becoming increasingly common for

researchers trained in positivist and post-positivist traditions to engage in qualitative research

(Gephart, 2004; Lee et al., 1999). Consequently not all qualitative researchers agree with the "interpretive, naturalistic" assumptions associated with qualitative research (Creswell, 1998; Eisenhardt & Graebner, 2007; Yin, 2003). Precise definitions of qualitative research hence vary depending on the epistemological traditions of the authors (Creswell, 1998, 2003; Denzin & Lincoln, 1994; Eisenhardt & Graebner, 2007; Gephart, 2004; Strauss & Corbin, 1998). Nonetheless most researchers engaged in qualitative research agree that it can be explained as an approach in which:

- The focus is on the participant's perspective. The researcher does not impose any forced interpretations. Ideally qualitative research occurs in natural settings (Denzin & Lincoln, 2005; Lee et al., 1999; Strauss & Corbin, 1998).

- In a qualitative study, researchers generally collect *qualitative data* from interviews, observations archival sources etc which then normally is *qualitatively* analyzed i.e. through procedures other than statistical quantification (Creswell, 1998, 2003; Eisenhardt, 1989a, 1991; Eisenhardt & Graebner, 2007; Miles & Huberman, 1994; Strauss & Corbin, 1998; Yin, 2003).

- Qualitative research can employ a wide range of strategies of inquiry such as grounded theory, case studies, narratives, phenomenology, ethnography, etc (Creswell, 1998, 2003; Denzin & Lincoln, 2005; Eisenhardt, 1989a; Eisenhardt & Graebner, 2007; Lee et al., 1999; Miles & Huberman, 1994; Strauss & Corbin, 1998; Suddaby, 2006; Van Maanen, Sorensen, & Mitchell, 2007; Weick, 2007; Yin, 2003).

- In qualitative research the researcher often iterates between data collection and analysis with the primary intent of developing theory from the data (Eisenhardt, 1989a, 1991; Eisenhardt & Graebner, 2007; Gephart, 2004; Suddaby, 2006; Van Maanen et al., 2007; Weick, 2007).

Qualitative research as understood in this research is in consonance with the above tenets.

5.1.2 When is the use of qualitative research appropriate?

For research questions seeking to explore "what" "how" or "why" (as opposed to enumerating "how many" or "how much"), qualitative research is the recommended strategy (Barley, 2006; Creswell, 2003; Eisenhardt, 1989a; Eisenhardt & Graebner, 2007; Gephart, 2004; Lee et al., 1999; Siggelkow, 2007; Yin, 2003). Additionally under conditions where, due to lack of adequate existing research, constructs, measures and testable theoretical propositions need to be developed, qualitative research is considered to be the appropriate strategy (Creswell, 1998; Eisenhardt & Graebner, 2007). Thus when the intention of the research question is *initial exploration* or *theory development* rather than *theory testing*, qualitative research is the preferred approach (Eisenhardt, 1989a; Eisenhardt & Graebner, 2007).

Eisenhardt and Graebner (2007) recommend that under conditions where existing theory is inadequate, the appropriate strategy is to employ a qualitative inductive approach aimed at developing theory about the phenomenon under investigation. This is supported by Yin (2003) and Creswell (2003) who recommend that for exploratory type of "what" questions, qualitative exploration is the most appropriate strategy. This research thus uses qualitative methods to explore the drivers of corporate environmentalism in developing and developed countries.

5.1.3 Acknowledging researcher bias

A critical issue in qualitative research is that the norms surrounding the conduct, analysis and reporting of qualitative research vary vastly depending on the epistemological traditions that the researcher draws from (Creswell, 2003; Eisenhardt & Graebner, 2007; Gephart, 2004; Gioia & Pitre, 1990; Lee et al., 1999). An example of how epistemological differences

influence qualitative research, is the debate between the camps espousing "better stories" (involving rich and vivid textual descriptions) versus "better theories" (involving a reductive approach to data in the form of matrices and tables) (Eisenhardt, 1991; Eisenhardt & Graebner, 2007). Therefore an important requirement while conducting qualitative research is to identify and state the epistemological assumptions that the researcher draws from (Eisenhardt & Graebner, 2007; Gephart, 2004; Lee et al., 1999). As discussed previously, while it is more common for researchers in qualitative methods to identify with constructivist, participatory or advocacy perspectives, I must acknowledge that I was schooled in the post-positivist tradition. Consequently this research is more aligned to Eisenhardt's (Brown & Eisenhardt, 1997; Eisenhardt, 1989a, 1989b, 1991; Eisenhardt & Graebner, 2007; Galunic & Eisenhardt, 1996, 2001; Graebner & Eisenhardt, 2004) and Yin's (2003) post-positivist and objective approach to theory building as compared with other traditions in qualitative research that subscribe to more constructivist or participatory approaches.

Furthermore, qualitative research employs a wide variety of inquiry strategies. Experts therefore recommend that the exact nature of the qualitative research strategy being used should be specified clearly and differentiated from other qualitative approaches (Eisenhardt & Graebner, 2007; Kalnins, 2007; Suddaby, 2006; Van Maanen et al., 2007; Weick, 2007; Yin, 2003). The following section therefore discusses the reasons for selecting the case study method as the specific inquiry strategy and also elaborates the distinctive features of case study research.

5.2 Why Case Study Method?

There are a wide variety of strategies of inquiry associated with qualitative methodology. These strategies include but are not limited to, ethnography, grounded theory, histories,

narrative research, phenomenology and case studies.

- *Ethnography* is the preferred method when a researcher seeks to examine a cultural group in a natural setting over a prolonged period of time primarily through observational data (Creswell, 1998).

- *Grounded theory* approach refers to theory generated from systematically gathered and analyzed data. Grounded theory results from a constant comparison of data with emerging categories. A key characteristic of the grounded theory approach is that a researcher does not begin the project with a preconceived theory in mind (Strauss & Corbin, 1998). Rather the researcher begins with an area of study and allows the theory to emerge from the data (Strauss & Corbin, 1998).

- *Phenomenology* involves the researcher identifying the essence of human experience concerning a phenomenon as described by participants in a study (Colaizzi, 1978; Creswell, 1998; Riemen, 1986).

- *Histories* normally deal with the past and typically there are no relevant live respondents. An investigator therefore relies on documents and artefacts as sources of evidence (Yin, 2003).

- *Biographical study* is a form of inquiry in which the researcher examines and reports the life story and experiences of an individual. These stories are then retold by the researcher using an interpretive approach (Creswell, 1998).

- *The case study methodology* is an empirical inquiry that, investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. (Yin, 2003).

Apart from epistemological considerations, the selection of a specific qualitative strategy is also concomitant on the nature and type of research inquiry. According to Yin (2003, p. 2), "the distinctive need for case studies arises out of the desire to understand complex social

phenomenon". Thus for research questions that seek to explore a *"what"* question (Yin, 2003, p. 6) about a contemporary set of events in which the contextual conditions are highly pertinent to the phenomenon of the study, the case study method is the appropriate strategy. Corporate environmentalism is a complex social phenomenon and because the focus in this study was on unravelling "the operational links" (Yin, 2003, p. 6) that drive organizations to be environmentally responsive, the phenomenon under investigation could not be examined independent of organizational context. The selection of the case method as an appropriate inquiry strategy for this research, was thus based on the ability of the case study method to allow the development of constructs, measures and testable theoretical propositions about a real world, context dependent phenomenon (Eisenhardt, 1989a; Eisenhardt & Graebner, 2007; Yin, 2003).

The distinctive characteristics of case study research are elaborated in the section below (section 5.3). The details of the application of these norms to this research are described in the subsequent section (section 5.4).

5.3 Distinctive Characteristics of Case Study Research

5.3.1 Role of prior theoretical framework in case study method

Case study methodology specifically calls for early identification of a research question and prior development of the theoretical framework (Eisenhardt, 1989a; Yin, 2003). In a case study the investigator therefore does not start with a clean theoretical slate but formulates a clear research problem and specifies some potentially important variables, with reference to extant literature (Eisenhardt, 1989a). At the same time case study method allows for flexibility through considering the possibility that the research question and the initial theoretical framework may evolve as the research progresses (Eisenhardt, 1989a).

5.3.2 Data collection in case study method

One of the strengths of the case study method is its ability to deal with a variety of evidence including documents, artefacts, interviews and observations (Yin, 2003). This reliance on multiple sources of evidence makes possible the convergence of data through triangulation (Yin, 2003). Data triangulation refers to collection of information from multiple sources about the phenomenon under investigation and then corroborating the evidence from these multiple sources to better understand the phenomenon.

However, although case studies can deal with a variety of data collection methods, when the number of cases multiply and when cases are dealing with complex research issues such as strategic decision making, interviews then become the primary data source (though of course documents, observations, etc., still assist) (Eisenhardt & Graebner, 2007). That said, findings based on interviews with single respondents are subject to being challenged on grounds that the respondents can indulge in impression management and thereby not provide wholly reliable data. Therefore an effective method of increasing confidence in the findings based on interviews is to use multiple informants (Eisenhardt & Graebner, 2007). Using multiple informants involves interviewing informants at different hierarchical levels, across different functional areas and experts outside the organizations. Data collection using multiple informants and substantiating the evidence through other sources (e.g., documents, observations, archival reports) helps in validating the findings.

5.3.3 Single versus multiple cases

Case study research can be based on single or multiple cases. Research based on single cases such as Weick's (1993) classic case about loss of sense making in Mann Gulch fire disaster and Dutton and Dukerich's (1991) study of the New York Port Authority, have resulted in

novel and highly acclaimed theories (Bartunek, Rynes, & Ireland, 2006). Single cases can provide rich descriptions (Dutton & Dukerich, 2006; Siggelkow, 2007; Weick, 2007) and are especially useful when the case is rare, unusual, revelatory or critical (Siggelkow, 2007). However, evidence from multiple cases is normally considered more compelling (Eisenhardt, 1989a; Eisenhardt & Graebner, 2007; Elsbach & Kramer, 2003; Ferlie, Fitzgerald, Wood, & Hawkins, 2005; Gilbert, 2005; Greenwood & Suddaby, 2006; Kalnins, 2007; Sutton & Rafaeli, 1988; Yin, 2003; Zott & Huy, 2007). This is because using multiple cases allows a broader exploration of the research question and also ensures that the constructs and relationships are better delineated. This provides a stronger base for theory building.

5.3.4 Replication logic

Replication logic is central to building theory from multiple cases (Eisenhardt & Graebner, 2007; Yin, 2003). However before describing *replication logic* it is important to distinguish it from *sampling logic*. This is crucial because much of the criticism and misunderstandings associated with case studies results from evaluating case studies through wrongly applying sampling logic to case studies (Yin, 2003). Sampling logic is the logic used in survey methodology, which allows statistical generalization about a population on the basis of empirical data collected about a sample. However according to Yin (2003) it is a flawed approach to evaluate cases on the basis of statistical generalization. This is so because firstly cases do not purport to study the frequencies of the prevalence of a phenomenon. Hence any application of statistical generalization is inappropriate. Moreover to be able to apply statistical generalization to case study data, a case study would have to cover both the phenomenon of interest and also its context. This would yield a large number of potential variables. This in turn would require an impossibly large number of cases to allow any statistical consideration of the relevant variables (Yin, 2003).

The central feature of developing theory from multiple case studies is a distinct feature termed replication logic (Eisenhardt & Graebner, 2007; Yin, 2003). Yin (2003, p. 47) uses the analogy of multiple experiments to explain replication logic, "*a major insight (in understanding replication logic) is to consider multiple cases as one would consider multiple experiments*". Individual cases in a multiple case study are thus not to be confused with multiple respondents in a survey but instead are better understood as distinct experiments that stand on their own as analytic units. Just as scientific discoveries are based on replication of findings in subsequent experiments so also in multiple cases, replication logic allows theory development through either literal replication (cases predict similar results) or theoretical replication (cases predict contrasting results but for predictable theoretical reasons) (Yin, 2003). Replication logic ensures that the insights gained are not idiosyncratic to a single case but instead are consistently replicated (literally or theoretically) across multiple cases. This leads to more robust theory development (Eisenhardt & Graebner, 2007).

5.3.5 Theoretical sampling

Theoretical sampling is another distinctive feature of case research. It refers to the process of selection of cases on the basis of their ability to provide enlightening revelations and their suitability to extend relationships and logics among constructs (Eisenhardt, 1989b; Eisenhardt & Graebner, 2007). There is a distinct rationale for theoretical sampling in both single and multiple case studies. Single cases are theoretically sampled for their ability to reveal unusual phenomenon (Siggelkow, 2007). Multiple cases are theoretically sampled so as to enable the replication of findings from other cases, eliminate alternative explanations and to elaborate the emerging theory (Eisenhardt & Graebner, 2007; Yin, 2003). Eisenhardt and Graebner (2007) however point out that because cases are theoretically sampled (as opposed to random or stratified sampling) readers often make the faulty judgement that since cases are not

representative of a population, therefore the theory generated from case studies cannot be generalized. According to experts in qualitative research (Creswell, 1998, 2003; Eisenhardt, 1989a, 1991; Eisenhardt & Graebner, 2007; Gephart, 2004; Lee et al., 1999; Miles & Huberman, 1994; Rynes, Bretz, & Gerhart, 1991; Siggelkow, 2007; Suddaby, 2006) the response to this faulty assumption lies in specifying that the purpose of qualitative research is to develop theory and not to test it. Theoretical sampling of cases allows an investigator to follow an inductive theory building approach about phenomenon which have not been adequately addressed by existing research. Thus because the purpose of case study method is to develop theory (as opposed to testing theory) a careful selection of cases allows the investigator to more precisely explore and define the processes under investigation.

5.4 Application of Case Study Norms to this Research

This research has been designed as a multiple-case inductive study involving 23 environmentally responsive business organizations. Since this research examines the drivers of corporate environmental responsiveness in developing and developed countries, this study accordingly focussed on business organizations in one developing country (India) and one developed country (New Zealand). The definition of developing and developed countries is based on the United Nations definition of developing and developed countries (United Nations, 2007).

Of the 23 firms in this study, 11 were business organizations based in India and 12 were New Zealand based business organizations. The basis of selection of India and New Zealand as the developing and the developed countries respectively was to be able to use "polar types" approach (Eisenhardt, 1989a; Eisenhardt & Graebner, 2007; Yin, 2003). In this approach the researcher selects contrasting frames to be able to clearly observe the differences arising out

of contextual differences. New Zealand thus is internationally recognized as a clean and green country, which prides itself on its environmental responsiveness, so much so that environmental policies often prove to be insurmountable barriers for existing and new corporate ventures (Ministry for the Environment, 2001). India in contrast is one of the fastest growing economies in the world, where environmental considerations often take a backseat, especially when confronted with the promise of wealth generation through new corporate ventures (Islam, 2007; Mukherjee & Kathuria, 2006). Such polarity in contextual frames allows a researcher to observe contrasting patterns in the data. This assists in gaining a better understanding of the phenomenon being investigated (Eisenhardt, 1989a; Eisenhardt & Graebner, 2007; Yin, 2003).

5.4.1 Theoretical sampling of cases

Since previous empirical studies suggest that larger organizations are more likely to adopt proactive environmental practices (Arora & Cason, 1995; Collins, Lawrence, Pavlovich et al., 2007; Darnall & Edwards, 2006; Lawrence et al., 2006; Sharma & Henriques, 2005; Sharma & Vredenburg, 1998) therefore the organizations in this study were theoretically sampled from amongst the larger business organizations (based on revenue) in India and New Zealand. The organizations in India were theoretically sampled from a list of top 500 business organizations (based on revenue) and in New Zealand from a list of top 200 organizations (based on revenue).

The logic behind larger organizations being more likely to be environmentally responsive has been discussed in chapter three and has been explained on the grounds that larger organizations are more visible (Bowen, 2000) and consequently face greater stakeholder pressure to be environmentally responsible. Furthermore larger organizations have more

resources (Sharma & Vredenburg, 1998) and thereby have more discretionary slack available for environmental proactivity (Bowen & Sharma, 2005; Sharma, 2000). Small and medium enterprises (SMEs) on the other hand, have been observed as being neither willing and nor having the resources required for environmental proactivity (Sharma & Vredenburg, 1998). Moreover other factors such as lack of institutional framework (Revell & Rutherfoord, 2003) and a lack of awareness of and empathy with regulations (Petts et al., 1999) also hinder the adoption of environmental responsiveness in small and medium enterprises.

Previous research in the Indian context has specifically indicated that corporate environmentalism in India is limited to the larger organizations (D'Souza & Peretiatko, 2002). Small and medium enterprises in India have been singled out as the worst polluters and have been implicated for paying the least attention to environmental issues (D'Souza & Peretiatko, 2002). In the New Zealand context, although the business scene is dominated by SMEs; 98 percent of all enterprises in New Zealand are SMEs (Lawrence et al., 2006), however even in New Zealand larger businesses are credited with being environmentally more responsive (Collins, Lawrence, Pavlovich et al., 2007; Lawrence et al., 2006).

Thus because prior research suggested that the variable of interest (corporate environmental responsiveness) was to be found in larger organizations therefore, this study focussed on the larger organizations in India and New Zealand.

The criterion for further selection of the organizations from amongst the top organizations was an established reputation for environmental responsiveness. To shortlist the organizations on the basis of being environmentally responsive, a detailed content analysis (Malhotra, Hall, Shaw, & Oppenheim, 2006) of the organizational websites and of the environmental reports of the top organizations was conducted. The initial evidence of environmental responsiveness

was thus determined through existence of environmental management measures such as ISO 14001 certification, corporate environment policy, environmental reporting and environmental auditing. The environmental credentials of the organizations were also inferred from environmental awards and media reports. Information about measures such as green product development, location of new plants in environmentally less sensitive areas, changes in process design to prevent pollution etc, were inferred from corporate websites, annual reports, environment and sustainability reports (where available) and articles in the media.

Additionally to ensure that environmental leaders were also included in the study, Delphi technique (Aaker, Kumar, & Day, 2004) was employed. Accordingly, after short listing the organizations using the secondary sources (websites, annual reports environmental reports media coverage etc.) discussions with four Indian experts and five New Zealand experts were used to determine the environmental leaders in each country. These experts through their extensive professional experience had sound knowledge about the environmental credentials and reputations of the organizations in their respective countries. The four experts in India individually compiled a list of the organizations they considered to be in positions of environmental leadership. This process was repeated with the five New Zealand experts. The organizations that were common to the expert's lists in each country were included in the final sample.

Access was extremely challenging in India. Contacts were made with 70 organizations before I succeeded in getting depth interviews with 11 widely recognized environmentally responsible organizations. Access was relatively easy in New Zealand. While some of the organizations that had been shortlisted through the above process could not be contacted (as mutually convenient times could not be arrived at) the final sample included 12 firms which were widely acknowledged to be in positions of environmental leadership.

Because of the extremely sensitive nature of environmental issues, interviews with environmentally responsive firms were hard to secure (especially in India). Even so deliberate attempts were made to include business organizations across a wide range of industries in the final sample in both India and New Zealand. This was done in recognition of the fact that certain sectors of the economy may be more exposed to specific stakeholder pressures (for example from consumers) than others (such as business to business activities) and therefore the concomitant reasons for being environmentally responsive can also differ. To prevent the findings being constrained to specific sectors of the economy deliberate attempts were made to include businesses across a wide range of industries in both India and New Zealand. Accordingly the sample in India included a petrochemical firm, a conglomerate with a number of businesses (including pulp and paper, tobacco, IT etc), an electronic manufacturer, a steel manufacturer, a FMCG manufacturer, an apparel manufacturer, a hotel chain firm and two firms each from the pharmaceutical and the chemical industry. Due to basic structural differences between the Indian and New Zealand economies a forced attempt to include comparable industries (e.g. having dairy firms in both countries) was considered neither suitable nor particularly helpful. However comparability in terms of including environmental leaders in both countries was considered essential. The New Zealand organizations included a dairy products manufacturer, a mining firm, a petrochemical company, an electricity distributor, a construction firm, a wool scourer and manufacturer, an electricity generating firm, an electronic and defence equipment manufacturer, a food manufacturer, a retail chain, a food distribution firm and a chemicals and fertilizer manufacturer. The characteristics of the sample firms are summarized in Tables 5.1 and 5.2. It must be pointed out here that the managers, who participated in the depth interviews, were promised confidentiality. The names of the organizations have therefore been changed to protect confidentiality. The revenue and the employee details have been

listed to provide a measure of the size of the organizations but as suggested by Saha and

Darnton (2005, p. 129) have been rounded off to further ensure confidentiality.

Table 5.1 Profile of case studies in India

Organization	Sector	Revenue in US $ millions (2006)	Employees
Valiance	Petrochemicals	30,100	25,000
Cosmos	Steel	7,000	39,000
ICLL	Pulp & Paper	3,100	21,000
Endeavour	FMCG	3,000	16,000
Tripax	Pharmaceutical	1,700	11,000
Pharmachem	Pharmaceutical	1,000	9000
Sun	Fertlizer	900	100,000
Cottex	Textile	470	4000
Organochem	Chemical	460	4300
Mayer Systems	Electronics	460	4500
Raj	Hotel Chain	400	7000

Table 5.2 Profile of case studies in New Zealand

Organization	Sector	Revenue (in US $ millions) 2006	Employees
Atlas	Dairy	10,800	16400
Skyes	Construction	4,300	20,000
Shield	Petrochemical	2100	300
Phoenix	Electricity generation	1,545	500
Fabio	Food Distribution	1,540	1200
Hercules	Retail Chain	1,300	5500
Amity	Food Industry	480	1500
Solitaire	Mining	440	800
Sunrise	Chemicals and Fertilizer Manufacturer	360	600
Marion	Electricity distribution	150	140
Waite	Electronic & Defence Equipment	150	600
Keratin	Wool Scouring	100	80

The sample thus includes firms from a wide range of industries and includes both exporting

and non exporting firms. The sample thereby does not restrict the findings to specific sectors.

Furthermore to prevent the findings being constrained by local conditions (given the fact that

India especially is a vast and diverse country), in both India and New Zealand firms were

sampled across geographically diverse regions. Thus the industries in India were sampled

from across all the major industrial regions and in New Zealand across the major cities. Such

industrial and geographic variety enhances the representatives of the sample and increases the generalizability of the results (Graebner & Eisenhardt, 2004).

5.4.2 Data sources

Several data sources were used for this research:

1) Qualitative data from semi structured interviews

2) Emails and phone calls to follow up interviews

3) Archival data, including company websites, business publications, brochures and other material (including copies of public presentations made) provided by the respondents. Details of secondary sources used are provided in Appendix one (p. 223).

More than 40 interviews were conducted over a period of 17 months. All of the interviews (except for nine interviews with outside experts) were tape recorded and transcribed verbatim. These transcriptions totalled 654 double spaced pages. For the interviews with outside experts, extensive notes were taken during the interviews. These detailed notes were then written up immediately after the interview. When further clarifications were needed, follow-up questions were normally asked through email and phone.

The first phase included 18 pilot interviews with corporate communication directors, managers responsible for environmental issues, technical engineers and board level executives across five business organizations each in India and New Zealand. The pilot interviews indicated that the decisions regarding corporate environmental practices were made by very small groups of people in organizations, typically including the CEO, a few board members and a few key executives. This may reflect the sensitive nature of environmental decision making in most organizations. Consequently information about the strategic drivers for corporate environmental responsiveness is available primarily to this select group. The pilot

interview also indicated that other managers and individuals had limited, if any, awareness about the strategic drivers for an organizations environmental responsiveness. This is supported by previous research by Graebner and Eisenhardt (2004) who found that awareness about a firm's strategy especially about sensitive issues decreases beyond the top managerial team.

Thus because the pilot interviews indicated that information regarding the strategic drivers of corporate environmentalism rested with a few key knowledgeable informants, in senior management positions, the focus in the primary data collection phase was on gathering information from those informants who were central to environmental decision making. Typically such "informed informants" were the senior most managers responsible for environmental issues. Accordingly the primary data collection involved in-depth interviews with senior level informants (who were in charge of environmental issues in environmentally responsive business organizations in India and New Zealand). Access to these senior managers, especially in India is challenging and is protected by multiple gatekeepers. In a majority of the cases in India, access was gained through request to corporate communication directors. In one case request to the CEO and in another case to a senior board member yielded suitable contacts. In New Zealand direct requests to the suitable managers were successful in securing an interview in four cases. In other cases (5) it had to be requested through the corporate communication managers, through a senior board member (1) or through senior managers in other functional areas (2). The designations of the managers interviewed for the primary data collection are detailed in the Table 5.3 (for organizations in India) and Table 5.4 (for organizations in New Zealand).

Table 5.3 Designations of managers interviewed in organizations in India

Organization	Designation of the managers interviewed
Valiance	Senior Vice President Centre for Health Safety and Environment Excellence
Cosmos	Director Environment Health and Safety
ICLL	1. Executive Vice President Environment Health and Safety 2. Director Corporate Communications
Endeavour	Director Environment Health and Safety
Tripax	Director Environment Health and Safety
Pharmachem	Senior Director Corporate Safety Health and Environment
Sun	Divisional General Manager Total Quality Management and Environment
Cottex	Director Central Utilities and Engineering
Organochem	Chief Environmental Officer
Mayer Systems	1. HOD, Environment, Health and Safety 2. Senior Manager, Total Quality Management 3. Chief Executive Officer 4. Managing Director
Raj	Managing Director

Table 5.4 Designations of managers interviewed in organizations in New Zealand

Organization	Designation of the managers interviewed
Atlas	1. Natural Resource Group Manager 2. Senior Environment Manager
Skyes	Environment, Health & Safety Manager
Shield	1. Manager Health Safety and Environment 2. Corporate Communications Manager
Fabio	Resource Consents Manager
Phoenix	Corporate Environment Manager
Hercules	Corporate Social Responsibility Manager
Amity	1.Operational Risk Manager 2. Manager Environment Health and Safety- Corporate 3. Environment Engineer
Solitaire	National Environmental Manager
Sunrise	General Manager Strategic Development
Marion	Corporate Educational and Compliance Manager
Keratin	Managing Director
Waite	1.Head of Environmental Programme and Group Quality Manager 2. Technical Manager

The interviews with these managers were typically between 60-90 minutes and followed a

semi structured interview guide. The interview guide listed the broad areas at which the

questions would be directed during the interviews. It was provided to managers who

requested it, prior to the interview (the detailed interview schedule is provided in Appendix two, p 224).

Depending on how the interview was proceeding, some questions were probed at a greater depth, while others that appeared to be not relevant were ignored. The interviews began with background information regarding the environmental issues an organization considered relevant and the way the organization dealt with those issues. This was followed by an open ended enquiry about the drivers of environmental responsiveness. Such open ended questioning leads to higher accuracy and richer insights especially in retrospective reporting (Graebner & Eisenhardt, 2004; Rynes et al., 1991). The interview then probed the specific drivers that had been derived from extant literature, especially if the managers had not already discussed those issues. Depending on the information being provided some of the drivers were further probed in greater detail. The concluding questions dealt with the specific levels of environmental responsiveness in the organization.

5.4.3 Use of multiple informants

While multiple informants reduces bias, it was not possible to include multiple informants for all the organizations in this study. This was because of two reasons.

Firstly as indicated by the pilot interviews information about the strategic drivers of corporate environmental responsiveness is normally available only to a select group of very senior managers, including the CEOs and a few key executives. The CEOs of organizations (both in India and New Zealand) however constitute an exclusive group of elite and influential leaders, access to whom is severely restricted and protected by multiple gatekeepers. Except for one organization in India (where perhaps because the CEO had a deep conviction for environmental concerns), I did not succeed in getting interviews with the CEOs. In fact even

accessing senior managers responsible for environmental issues (especially in the Indian organizations) was extremely challenging. To be able to successfully contact such managers in the top Indian organizations, it required on an average more than 30 contacts through multiple combinations of faxes, emails and telephones. This was very different from my experience in New Zealand, where the process of securing and conducting an interview with senior managers was mostly very efficient. In contrast gaining access to suitable informants was an arduous and labyrinthine process in India. The difficulties that I encountered while conducting data collection in India, along with the possible remedies for future researchers are discussed in appendix three. The objective behind the discussion in appendix three thus, is not only to explain certain limitations of my data collection process but also a hope that subsequent researchers conducting research in developing countries might be able to benefit from my experience.

Not withstanding access issues, the second reason is that most organizations both in India and New Zealand regard the natural environment as a very sensitive issue. All the managers whom I interviewed for this research were thus extremely concerned about maintaining confidentiality of their organization's identity. Managers other than the ones in charge of environmental issues were neither willing to, nor "allowed" to talk freely about the environmental issues concerning an organization. One corporate communication director in New Zealand got extremely annoyed when I attempted to request an interview with a manager in addition to the one she had designated. Thus perhaps because managing corporate environmental issues requires a certain level of specialist technical and legal knowledge, or perhaps because of the sensitive nature of environmental issues, request for interviews with managers other than those dealing with environmental issues were generally not acceded to. Managers in other functional areas would turn down requests saying they had insufficient

knowledge as they were not dealing with the "environment". This hindered collecting data from multiple informants.

However even though multiple informants could not be used for all the organizations in this study there are reasons to believe that this has not affected the validity of the inferences drawn from this study. This is because:

1) Firstly in the six organizations where access to multiple informants could be secured the insights provided by the informants in no way deviated from the information provided by the managers responsible for environmental issues. This provides confidence in the information provided by the primary respondents (senior environment managers) as it is very unlikely that multiple informants will provide similar information unless that happens to be a close account of reality (Eisenhardt & Graebner, 2007). Table 5.5 details the six organizations where multiple informants across hierarchies and different functional areas could be secured. (Please note that these multiple informants are distinct from and do not include those managers who were interviewed in the pilot interviews but could not/would not provide any information about corporate environmental responsiveness in their respective organizations).

2) Secondly, as suggested by Elsbach and Kramer (2003) interviews were also conducted with nine experts outside the organizations. These experts had in-depth knowledge of the environmental concerns confronting business organizations, due to their long standing professional experience. Of these experts four were interviewed in the context of Indian organizations and five in the context of New Zealand. Information provided by the primary respondents within an organization was compared with the information provided by the experts outside the organization. In a majority of the cases, the views of the experts were in

consonance with the information provided by the managers. Where experts offered additional

explanations, the managers were interviewed again and requested to elaborate on those issues.

Table 5.5 Details of multiple informants

Organization	Country	CEO	Senior board level manager	Environment manager	Technical specialist	Corporate communi- -cation director
Mayer Systems	India	X	X	X	X	
ICLL	India			X		X
Amity	New Zealand		X	X	X	
Atlas	New Zealand			X	X	
Shield	New Zealand			X		X
Waite	New Zealand			X	X	

3) The third insight that indicates that the primary respondents were not indulging in

providing socially desirable answers was obtained through a serendipitous but very

enlightening experience. The source of this insight was when one organization in India and

three organizations in New Zealand treated the semi structured interview guide as a structured

questionnaire. The interview guide was generally requested by the gatekeepers before

allowing access to the senior managers. Four of the organizations which requested the semi

structured interview guide, treated the list of questions in it as a structured open ended

questionnaire and send back detailed written responses. Compared to the rich details that I

was getting through the in-depth interviews from managers in both India and New Zealand,

these written responses were different both in form and content. The written responses were

staid, reserved and clichéd. The answers appeared to be aimed at delivering an acceptable and

"a technically correct response" and had none of the novel and interesting revelations that I

was gaining through the intense discussions and interviews with other managers. To explore

this issue further I requested in-depth interview with the four managers who had provided the

written responses. Managers in two of the organizations (Mayer Systems in India and Fabio in

New Zealand) agreed to be interviewed in person. The responses they provided in these depth interviews were starkly different from what they had given in writing. Examples of these differences are presented in appendix four, five and six. While the responses in the depth interviews were open and candid admissions about the factors that drove their organizations to be environmentally responsive, the written responses were devoid of those insights and were merely aimed at being "politically correct". The drivers that emerged from the written responses and the in-depth interviews were thus vividly and remarkably different. Furthermore the quality of the responses gained through the depth interviews in these two organizations closely mirrored and replicated the insights being gained from other organizations through the depth interviews. Previous research in context of recruitment in job choices by Rynes et al., (1991) found that allowing job seekers to explain their choices through in depth interviews produced a truer picture of the applicant's search and choice process. They suggest that there is a potential for significant insights being gained if respondents are allowed to speak in their own words.

Thus the richness and the closer to truth quality of the responses offered through in depth interviews in this research as compared with the "technically correct" and reserved written responses, lends support to the argument that the managers interviewed were not engaging in sense making and providing unreliable answers during the depth interviews. Had the managers been indulging in deliberate impression management during the interviews, these differences would not have existed and certainly not as vividly. Therefore even though practical constraints prevented interviews with multiple informants in all of the 23 organizations, the above discussion indicates that the information provided by the primary respondents in this research is reliable.

5.5 Data Analysis

5.5.1 Within case analysis

As is recommended in inductive case study research (Eisenhardt, 1989a, 1989b; Eisenhardt & Graebner, 2007; Miles & Huberman, 1994; Yin, 2003) the first step in data analysis was analysing each case individually. Within case analysis typically involves developing detailed case histories for each of the organizations. Developing detailed case histories for each of the organizations assists the researcher in becoming intimately familiar with each case (Eisenhardt, 1989a). This rich familiarity with each individual case, allows the unique patterns for each individual case to emerge fully without being influenced and constrained by the patterns of other cases. This in turn subsequently facilitates a more reliable cross case analysis (Eisenhardt, 1989a).

Accordingly detailed individual case histories were prepared for all the 23 organizations. This was done through synthesizing the data from the extensive field notes, the interview transcripts and archival data. The interview transcripts, the field notes and the relevant archival sources for each organization were read and re-read many times over to be able to fully understand them and to be able to pick up all the subtle nuances. NVivo 7 qualitative analysis software was used to assist with developing individual case histories. NVivo 7 allows a researcher to make detailed annotations and memos which is very helpful in writing case histories. It also allows detailed coding and permits a researcher to ask questions of the coding. This brings out both the corroborating and the contradictory evidence and thereby adds rigour to the analysis. NVivo 7 was also used for developing detailed models and graphics. Additionally, NVivo 7 was used in this research to code the stance of every organization to each of the issues discussed in the interviews. Detailed codes were also developed from the data, obtained through observations and archival documents, using NVivo

7. To illustrate the way coding was done, all the environmental issues considered relevant by an organization, the way it deals with these environmental issues and the factors that propel the organization to address these environmental issues were coded separately for each organization. Separate coding was initially done for all the three sources (the field notes, the interview transcripts and the archival documents) from which information about the above issues was collected. After corroborating and synthesizing the information from these multiple sources, detailed case histories about each organization were then prepared. This "triangulation" of data sources is central to data analysis in case studies (Yin, 2003) and creates more reliable and richer case histories. To provide a check on the emerging case histories, a second researcher who was not engaged in data collection and thus had not been sensitized to the data, read the original interviews and the documents and formed an independent view. This view was then incorporated into each case history to provide a more accurate view of each organization.

To summarize the above discussion, in the within case analysis, the focus was on understanding the drivers that propelled individual organizations to be environmentally responsive. The within case analyses thus concentrated on developing constructs and explanations regarding the phenomenon of corporate environmentalism as experienced in individual focal organizations. This emergence of constructs from data, (as opposed to being guided by specific hypothesis) is a core aspect of inductive case research (Eisenhardt, 1989a; Eisenhardt & Graebner, 2007). Although similarities and differences among cases were noted, any further comparative analysis was not done, till the detailed individual case write ups had been completed.

5.5.2 Cross case analysis

Cross case analysis was commenced after the within case analysis of all individual cases had been completed. Using standard cross-case analysis techniques suggested by Eisenhardt, (1989a) cases were examined for similarities and differences across various dimensions. If the findings and explanations were consistently replicated (literally or theoretically) across cases, tentative propositions about the emerging phenomenon were then developed. The analysis process was iterative and took eight months to complete. The various techniques used in this research to facilitate cross case comparison are discussed below:

1. Searching for cross case patterns

One of the techniques recommended by Eisenhardt (1989a) is to divide the cases into groups and then look for similarities within the group coupled with intergroup differences. This assists the researcher to broaden the frame of reference and systematically proceed beyond initial impressions. Accordingly the cases in this research were divided into two broad groups depending on whether they were from a developing country or a developed country. These groups were then examined for within-group similarities as well as intergroup differences on the basis of a set of dimensions. These dimensions can emerge from within case analysis or can be suggested by the research questions (Eisenhardt, 1989a). In this research the dimensions and categories used for this comparison were suggested both by the original research questions and also emerged from the individual case histories. Furthermore the interview guide (which had its original basis in the research questions, but had been modified to include new questions as data collection proceeded) also assisted in delineating and sharpening the dimensions along which the drivers of corporate environmentalism were examined. Accordingly the various dimensions on which the cases in this research were analyzed, included the role that factors, such as regulations, competitors, customers, top

management, organizational culture, employees, pressures from multinational organizational customers etc, played in influencing corporate environmental practices, across both the groups.

A second stage of coding was then done using NVivo 7. The initial free codes for each individual organization were organised into clusters based on within group similarities and intergroup differences. Responses from individual cases were coded under these categories to observe any discernible pattern. Some dimensions such as the role of top management did not reveal any clear patterns. However other dimensions such as regulations lead to important and clearly recognizable patterns of within group similarity and across group differences. Using the matrix query function in NVivo, 2 X 2 cells designs were also used to compare several categories at once. This further brought out the differences in the drivers of environmental responsiveness in these two groups.

2. Comparing case pairs

A second technique used was to select pairs of cases within the groups and list the similarities and differences within the case pairs. This involved pairing cases within the broader groups. As an example, using this tactic pairs were made of cases belonging to the broader group of developing countries. This approach involved deliberately looking for subtle similarities and differences between these pairs. According to Eisenhardt (1989a, p. 541) "the juxtaposition of seemingly similar cases by a researcher looking for differences can break simplistic frames". In a similar fashion, looking for similarities between seemingly different cases also produces more refined insights. Accordingly in this research case pairs were examined within and across the broad groups (For example, pairing two pharmaceutical firms from developing countries and pairing two petrochemical firms, one in developing and one in developed countries and then examining these pairs for similarities and differences). A

deliberate and forced comparison of the various case pairs revealed interesting insights. These insights concerned both similarities in certain drivers across cases in developing and developed countries and also subtle but clear differences between drivers within the groups. These similarities and differences would have been missed had the focus been only on within group similarities and intergroup differences. Forced comparisons between paired cases can thus lead to better understanding and more sophisticated findings which the researcher might have failed to anticipate or notice (Eisenhardt, 1989a).

The use of these tactics thus improves the likelihood of more accurate and reliable theory emerging from case study data (Eisenhardt, 1989a). These tactics were intensively used for cross case data analysis in this research and have assisted in uncovering novel findings within the case data. These findings and insights obtained from within case analysis and the cross case analysis are discussed in Chapter 6

CHAPTER 6A

FINDINGS:

ENVIRONMENTAL ISSUES CONSIDERED RELEVANT AND CATEGORIZATION

OF ORGANIZATIONS INTO FIRST AND SECOND ORDER RESPOSNIVNESS

Summary

For the sake of clarity the findings of this study have been divided into three chapters. Chapter 6A deals with those findings of this study that provide a basis for investigating and reporting the drivers of corporate environmentalism. Chapter 6A accordingly discusses the environmental issues that confront the case study organizations. It also categorizes the organizations into first and second order environmental responsiveness based on the way they deal with these environmental issues. Chapter 6B and 6C detail the drivers of first and second order corporate environmental responsiveness in the case study organizations in India and New Zealand respectively. Detailed illustrative quotes have been presented in the Tables to explain the basis for every finding. While this aids reliability, the number of factors being explored (comparatively for each country) does lead to excessive detail. The readers are invited to use their discretion in the perusal of the Tables (e.g. for any issue where they might seek clarification or greater detail).

6A.1 Environmental Issues

This section elaborates the environmental issues that confront the case study organizations in India and New Zealand. The first question asked to all the respondents was *"what sort of environmental issues does your organization have to deal with?"* The responses to this question highlighted the environmental issues faced by organizations across different

industrial sectors and also provided a logical basis for the next question *("How does your organisation deal with these environmental issues?"*). The responses to the second question in turn (along with the information collected from other related responses and from secondary sources and documents) provided the basis for classifying the organizations as being at differentiated levels of environmental responsiveness. As elaborated subsequently in this chapter the drivers of environmental responsiveness differ depending on the level of environmental responsiveness of the organization. Thus the importance of the first question lies not only in providing an overview of environmental issues that the organizations have to deal but also in setting the stage for further enquiry. This chapter therefore commences with a discussion of the environmental issues considered relevant by the case study organizations in India and New Zealand.

6A.1.1 Issues considered relevant by organizations in India

As summarized in Table 6.1, the 11 Indian case study organizations, although from diverse industrial sectors, have an underlying similarity as regards the environmental issues that they consider relevant. The majority of the organizations are primarily concerned with the "visible discharge issues" (such as effluents, hazardous wastes, noise, odour) and with water consumption (given the countrywide scarcity of water in India). While the traditional waste generation and disposal issues constitute a major part of the environmental issues that confront the case study organizations in India, however the more recent environmental issues are not on the radar of the majority of the organizations. Thus even with the current worldwide focus on climate change only four of the organizations in India reported dealing with emerging environmental issues such as climate change, energy efficiency, carbon sequestering and green house gas emissions.

Table 6.1 Summary of environmental issues that organizations in India consider relevant (GHG = Green house gases, CC = Climate change)

| Organization | Sector | Environmental Issues | | | | | | | |
| | | Effluents | | | | | | | |
		Air	Solid	Liquid	Odour (O) Noise (N)	Specific issues with local community	Water Usage	Haz. wastes	Recognition of emerging environmental issues
Cosmos	Steel	√	√	√		√		√	√ (CC)
ICLL	Diversified businesses	√	√	√		√	√	√	√ (carbon sequestering)
Endeavour	FMCG	√	√	√		√	√		√ (CC)
Valiance	Petrochemicals	√	√	√		√			√ (GHG emissions)
Cottex	Apparel	√	√	√			√		
Tripax	Pharmaceutical	√	√	√	√ (O)	√	√	√	
Organochem	Chemical	√	√	√	√ (O)		√	√	
Mayer	Electronics	√	√	√			√		
Pharmachem	Pharmaceutical	√	√	√	√ (O)		√	√	
Sun	Fertilizer	√	√	√			√		
Raj	Hotel Chains	√	√	√	√ (N)	√	√		

Table 6.2 below provides illustrative quotes that form the basis for this summarization

Table 6.2 Illustrative quotes regarding environmental issues considered relevant by organizations in India (GHG = Green house gases)

Organization	Issue	Environmental issues (abridged illustrative quotes)
Cosmos (Steel)	Effluents	Producing steel is very energy intensive and is prone to release many pollution elements into the atmosphere.
	Climate Change	If we don't invest in climate change today, tomorrow we may not be there! That will be completely irresponsible.
	Community	The welfare and safety of the community and the society around us are very important to us. We want to positively affect the community we serve.
ICLL (Diversified businesses, including pulp and paper, agri-business etc)	Effluents	Our environmental issues would relate to water pollution, they would relate to air pollution, they would relate to environmental impact assessment that you would need for the new projects, there are issues on hazardous wastes and you know used oil, solid waste so almost everything that comes under the umbrella of environment would actually be dealt within this company somewhere or the other.
	Energy conservation, carbon positive	A major issue is water consumption. Then of course there is energy consumption and global warming. By the end of this year, we should actually be carbon positive.

Organization	Issue	Environmental issues (abridged illustrative quotes)
	Community	Wherever we have got factories the communities around become quite important.
Endeavour (FMCG)	Effluents	We are a fast moving consumer goods company. Our technology is very simple we don't actually use a lot of the hazardous material and therefore we don't have any major issues. Normal issues like dealing with waste and effluent generation.
	Energy conservation	Energy conservation is a very big issue. We have it continuing where from 1996 onwards. The company has grown and despite that the actual use of energy has come down.
	Community	There are a lot of people and a lot of communities around our premises that affect us. In fact our factory manager for example has compulsorily to spend some time in the community there, with the schools or with the hospitals or with environmental bodies or local NGO's. He has to do that. And he has to organize trips to our factories and our premises so that people can see what we are doing and how we are doing things.
Valiance (Petrochemical)	Effluent, GHG, Energy conservation	Pollution in all forms whether it's in form of liquids or gaseous. Also energy conservation and green house gases emissions.
	Community	It sometimes could be local issues with the populations. When you are located in a site where there is population around, then the views of the population around have always to be taken care of.
Cottex (Textile)	Effluents	For any textile unit, the major environmental issue will come from the amount of water consumed and type of water discharged. But generally speaking the textile effluent is quite docile. So what we generate is mainly the dyes and the salt in the effluent water that is generated and then we consume a lot of water in this process. The type of effluent which comes out is easy to treat, and at the end of day we get some amount of solid wastes.
Tripax (Pharmaceutical)	Effluents	Output quality of effluents is one of the major issues. The second thing is the disposal of solid wastes. Now in many of the states in India, we do not have the authorized landfills arrangements-so to that extent we need to store them. So there is storage of these disposable solid wastes at site, which is an issue. There is also a slight issue in terms of … you know … we handle a lot of solvents at site. So if it is not managed properly then there is a possibility of odour problem at any of the bulk drugs sites.
	Community	There are some residential areas around in manufacturing. They are also definitely our major stakeholder because our business can affect them. So to a great extent we are to ensure that they are not affected by our operations. The senior members of the community are brought to our locations; we take them around the plant to show the plant itself so that they gain more confidence of

Organization	Issue	Environmental issues (abridged illustrative quotes)
		the operations.
Organochem (Chemical)	Effluents	The environmental issue that we have are mainly effluent related. We also have issues related with odour. Also issues related with wastes, part of which is hazardous in nature.
Mayer (Electronics)	Hazardous substances	We use plastic resins as raw material so there are no hazardous waste arising from the manufacturing process. But we use material classified as hazardous for alteration so that is an issue.
Pharmachem (Pharmaceutical)	Effluents	In the manufacturing process we generate the effluents. Then there are certain air emissions and certain solid waste is also generated. So primarily our issues are related to effluent treatment, air emission control and solid waste disposal.
Sun (Fertilizer)	Effluents	And so as far as environment is concerned water consumption and effluent generation.
Raj (Hotel chain)	Effluents	Being a hotel industry the environmental issue that our organisation has to deal with is garbage disposal. Because there is a lot of garbage that is created by our daily dealing with 1500 people a day. The second is noise pollution caused by parties that are sometimes being held in lawns or the discotheque or big shows that are being conducted. And the third is the emission of the various gases, cooking gases or the cooking smoke that is taken out or the various air conditioning plants and the boilers that we have.
	Community	The neighbouring societies are the people who have made us aware about it (certain environmental issues).

6A.1.2 Issues considered relevant by the New Zealand organizations

Like the organizations in India the case study organizations in New Zealand were also

concerned about the "visible discharges". The point of difference however, was that all the

organizations in New Zealand reported these issues (pertaining to effluent discharges) as a

"resource consent requirement" (see Table 6.3). Thus depending on the type of industry that

the organization identified with, meeting resource consents regarding solid and liquid wastes,

and discharges to air were considered relevant environmental issues. The resource consents

also monitored any effect that operations might have on water quality. Regulation of noise

and the production and disposal of hazardous substances were also important environmental

issues that were subject to resource consent requirements. All but three of the case study

organizations in New Zealand considered the effect of their operations on the local communities as a very relevant environmental issue. Furthermore a majority of the case study organizations in New Zealand were also very cognizant of the emerging environmental issues and had policies (or were considering putting policies in place) for dealing with issues such as green house gas emissions, climate change, and product disposal after its useful life is over. A number of organizations also considered dealing with potential changes in environmental legislation as relevant environmental issue.

Table 6.3 Summary of environmental issues that organizations in New Zealand consider relevant. (CC = climate change, GHG = green house gases)

| Organization | Sector | Effluents | | | Noise | Specific issues with local community | Resource consents | Recognition of future trends | Effect on water quality | Hazardous substances |
		Air	Solid	Liquid						
Atlas	Dairy	√	√	√	√	√	√	√ (food miles)	√	
Skyes	Construction	√	√	√	√	√	√	√ (product take back)		
Shield	Petrochemical	√	√	√			√	√ (CC)	√	√
Fabio	Food distribution		√		√	√	√	√ (CC)		
Phoenix	Electricity generation	√	√	√		√	√	√ (CC)		
Hercules	Retail chain		√				√	√ (Carbon footprint)		
Amity	Food Industry	√	√	√			√		√	
Solitaire	Mining	√	√	√		√	√	√ (carbon taxes)	√	√
Sunrise	Fertilizers	√	√	√		√	√		√	√
Marion	Electricity distribution		√	√		√	√		√	
Keratin	Wool scouring	√	√	√		√	√		√	
Waite	Electronic		√			√	√	√ (product take back)		

Table 6.4 below provides illustrative quotes that form the basis for this summarization.

Table 6.4 Illustrative quotes regarding environmental issues considered relevant by organizations in New Zealand

Organization	Issues	Environmental issues (abridged illustrative quotes)
Atlas (Dairy)	Effluents and Resource consents	On the farm side of the business we have got water quality, air quality, groundwater, and waterways contamination of ground water by chemicals And at factory end of scale there are the resource consents related to waste generated by the plants, smoke, waste product, noise...
	Community	On most of our sites we have regular community meetings. There is good communication going between the site management team, our neighbours and the general community. We meet the different groups on a regular basis and get feedback from them.
	Emerging environmental issues	We have also been involved in what we call the "food miles assessment".
Skyes (Construction)	Effluents and Resource consents	We have a range of environmental and site compliance issues. We have something like 305 sites in New Zealand where we generate wastes, trade wastes in those processes and on those sites we need to carefully monitor on discharges and in many of those sites there are also likely to be air discharges issues sometimes emissions from our industrial processes, sometimes fugitive emissions from our steel furnaces. So on those sites there will be requirements for those emissions to be controlled by the resource consents at those sites.
	Community	Neighbours in our sites and neighbouring communities are very important.
	Emerging environmental issues	We also now have environmental issues with regard to our products where increasingly the market is looking at the environmental effect of the use of our products, what sort of wastes are discharged from our products as environmental effects during the use or post life.
Shield (Petrochemical)	Effluents and Resource consents	Environmental issues which require ongoing active management include potential for soil and groundwater contamination, air discharge consents, loss of primary containment incidents, spills in shipping, storage and in inland distribution operations.
	Emerging environmental issues	Climate change is a very important focus.
Fabio (Food distribution)	Effluents and Resource consents	Sustainable management of resources, water conservation, beautification of amenities, meeting resource consents regarding noise reduction, waste reduction, putting in place the policies for dealing with climate change. Then there are other things with the industry like plastic bags, plastic packaging etc.
	Community	We are committed to the communities around us.

Organization	Issues	Environmental issues (abridged illustrative quotes)
	Energy Conservation	There is an organisation-wide focus on energy efficiency and waste reduction.
Phoenix (Electricity generation and distribution)	Effluents and Resource consents	Environmental issues range from use of resources and generation of waste, the environmental performance of business partners, dealing with climate change…changes in environmental legislation and policy… occurrence of a non-compliance event…
	Community	We foster close relationships with the community and stakeholders, so that their views can be incorporated into the company's environmental decision-making processes. Consultation is also undertaken with communities and stakeholders for resource consent applications for new projects.
	Emerging environmental issues	Our strategy on climate change is a comprehensive and cohesive company response to climate change.
Hercules (Retail chain)	Environmental issues	It's mostly to do with waste at our stores, our energy consumption to light and air condition our stores and buildings, emissions and fuel consumption associated with our distribution network - those are the main environmental impact issues.
	Energy conservation	We have a dedicated energy manager who manages all our electricity procurements and the efficiency of our operating units in terms of how they consume electricity.
	Emerging environmental issues	We calculate our carbon emissions as a business and we try and link that with to the way or try and demonstrate linkages between better management of our distribution and transport flows and how that better related to fewer emissions.
Amity (Food industry)	Effluents and Resource consents	We have got a number of areas that we affect environmentally. We've got to meet our air discharges, waste and water discharges, water uptake, solid wastes and thing like alternative disposal and recycling etc. Dealing with hazardous substances and emergency response is a part of it.
Solitaire (Mining)	Effluents and Resource consents and community	We assess the environmental impact in terms of the biota-the flora, the fauna, the ecological impacts, we look at impacts on water, the hydrological impacts are quite significant in certain areas of the country and we do pay heed to the impact of our activities on the social structure and the local economy.
	Emerging environmental issues	We do measure our own production carbon footprint. We produce something to the order of four – 4.5 million tonnes of coal a year and we will be liable to pay the carbon tax on that to the government for that portion which is sold in new

Organization	Issues	Environmental issues (abridged illustrative quotes)
		Zealand, in the future when our green house emissions will be associated with our product.
Sunrise (Fertilizers)	Effluents and Resource consents	Discharges to air, discharges to water and with main discharge being from the sulphuric acid manufacture and the biggest other factor that we probably watch is fluoride emissions. Meeting the resource consents for those sites. At the farm end there are huge issues around leaching.
	Community	Fluoride emissions, if they are high they can etch your glass so people nearby have their glass affected by the emission, it's very quickly becomes unacceptable. To be able to operate in a neighbourhood and continue to get consents for the next 30 – 40 years, not upsetting the nearby community around plant at the manufacturing site is very important.
Marion (Electricity distribution)	Effluents and Resource consents	Our biggest fear is that the oil may or will escape through a water course and enters the Avon river, waterways or one of the local drains – into the river and this sort of things. The penalties for causing significant damage are quite high
	Community	Considering the impact on the society and the place where you live has developed as a part of the company culture.
Keratin (Wool Scouring)	Effluents and Resource consents	Meeting the air, solid and waste water discharge consents consistently.
	Community	We have got a social conscious, we don't want to pollute the river or choke all the people in Belfast
Waite (Electronics)	Effluents	We don't have major environmental impact because we are not particularly a dirty industry. The use of energy would be a very large impact and waste disposal – these are the major ones. Elimination of hazardous substances from our products is a large design issue.
	Emerging environmental issues	Taking back the product at the end of life and considering the disposal issues is an emerging issue.
	Community	I mean it's not as if we emit a lot of noxious fumes or anything like that. But the other thing because we have got an environmental programme, we have certainly been quite happy to let the public know that we have that.

6A.1.3 Comparison of environmental issues relevant in organizations in India and New Zealand

While organizations both in India and New Zealand were concerned with environmental

issues concerning solid, liquid and gaseous discharges (see Tables 6.1 and 6.3) there however

appears to be greater degree of awareness in the New Zealand organizations regarding the emerging and globally oriented environmental issues (climate change and related issues such as green house gas emissions, carbon sequestering, food miles, product take back etc). Thus, five of the New Zealand organizations (Shield, Fabio, Phoenix, Hercules, Solitaire) considered climate change as an important environmental issues. In contrast four of the organizations in India (Valiance ICLL, Endeavour and Cosmos) mentioned having to deal with these environmental issues. Furthermore two of the organizations in New Zealand (Waite and Skyes) had started to consider environmental issues surrounding product take back (the producer being responsible for disposal of the product after the useful life of product is over). However none of the organizations in India have started to consider this issue as an important environmental issue confronting them. And finally as regards "food miles", an industry specific issue, Atlas, (a dairy firm in New Zealand) which exports to countries across the world has programmes in place for measuring the environmental impact of exporting its food products. However Endeavour, a FMCG company in India, which is also involved in export of food products from India has not yet started considering the "food miles" as an environmental issue.

To summarize, while organizations in both India and New Zealand are concerned about traditional environmental issues such as effluent discharge issues, organizations in New Zealand exhibit a greater awareness of the emerging global environmental issues

6A.2 Categorizing Organizations based on their Environmental Responsiveness

As is typical in case research (Eisenhardt, 1989a; Eisenhardt & Graebner, 2007) this study involved multiple iterations between data collection and data analysis. This juxtaposition of data collection and data analysis indicated that corporate environmental responsiveness, as

observed in this study, could be differentiated into two distinct levels. The initial basis for this

finding was the detailed coding comparisons (within and across country groupings) of the

responses to the second question (*how does your organization deal with the environmental

issues*) in the pilot interviews. This observation was further strengthened through the analysis

of the responses to this question in the second phase interviews. Both the initial and the

subsequent analysis revealed that the organizational responses to environmental issues could

be grouped into two distinct categories based on the way organizations choose to address

these issues. Accordingly based on the theoretical insights drawn from the phase models[3]

(discussed in chapter 2, p. 25) and the empirical data from the case studies, corporate

environmental responsiveness in this research was operationalized as a two order construct:

Organizations were categorized as being at *first order responsiveness* when they were

observed to recognize the importance of the natural environment and exhibited attempts to

decrease their impact on the natural environment through the adoption of programmes aimed

at pollution reduction and prevention, decreased resource consumption and recycling of

wastes.

Organizations at *second order responsiveness* were observed to exhibit a higher order

commitment in integrating environmental issues into their strategic decision making. This

involved strategies such as green product development and initiating projects aimed at

industrial ecology.

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[3] This categorization demarcates the levels of environmental responsiveness as observed in this study.
Accordingly it is not as elaborate as the detailed classifications of the phase models discussed in chapter 2 (p.
25). This condensed categorization can be explained on the following basis:
Firstly, this study examines the drivers of corporate environmentalism and thereby focuses only on firms that had
proven credentials of being environmentally responsive. Hence organizations at the rejection (Dunphy et al.,
2007) and non compliance/non responsiveness stages (Roome, 1992; Dunphy et al., 2007) were not a part of this
study. Secondly first order responsiveness as defined in this study combines the compliance stage with some
attributes of the efficiency stage. This better reflects the reality of the first order corporate environmentalism as
observed in the case study organizations in this study. The second order responsiveness in this study corresponds
to the stage of strategic proactivity (Dunphy et al., 2007). Finally the characteristics of the ideal stages such as
the sustaining corporation (Dunphy et al., 2007) were not observed in any of the organizations in this study and
hence are not reflected in these categories.

Gaining this important understanding allowed a differentiation of the case study organizations based on the levels of environmental responsiveness and also allowed the inclusion (through theoretical sampling) of further case study organizations that could support/ disapprove the emerging theory (Gersick, 1988). This in turn provided a sharper probe into the drivers that propel organizations to be environmentally responsive at the different levels and assisted in a more precise specification of the drivers at different levels across developing and developed countries.

The following sections elaborate the process and the rationale for categorizing the environmental responsiveness in the case study organizations as first or second order. The relevant information for this section was drawn primarily from the responses to the second question. In addition, related information provided in response to other questions and information drawn from secondary sources (sections in annual reports, or environment/ sustainability reports), were also used to further the understanding regarding the most appropriate category for an organization.

6A.2.1 Categorizing organizations in India

As described in Table 6.5, all the case study organizations in India had the standard environmental management measures in place to deal with the environmental challenges. Thus at a first glance the case study organizations in India can be characterized as having similar environmental profiles as. As indicated in Table 6.5 all the case study organizations:

1. had ISO 14000 certifications

2. published environment policies

3. published environmental/ sustainability reports

4. had distinct environment divisions

5. provided employee environment training

Table 6.5 Standard environmental measures in Indian organizations

Organization	ISO 14000	Environment Policy	Environment Report	Distinct environment division	Employee environment training	Environment Awards	Environmental benchmarking against other organizations
Cosmos	√	√	√	√	√	√	√
ICLL	√	√	√	√	√	√	√
Endeavour	√	√	√	√	√	√	√
Valiance	√	√	√	√	√	√	√
Cottex	√	√	√	√	√	√	
Tripax	√	√	√	√	√		
Organochem	√	√	√	√	√	√	
Mayer	√	√	√	√	√	√	
Pharmachem	√	√	√	√	√		
Sun	√	√	√	√	√	√	
Raj	√	√	√	√	√	√	√

Furthermore a majority of the organizations had won external awards for environmental performance and five of the organizations engaged in extensive environmental benchmarking against other domestic/ international organizations in their sectors. However despite having apparently similar profiles in regard to environmental measures, a detailed *within case analysis* (in this instance, it refers to how any of the individual case study organization in India deals with the environmental challenges) and *cross case analysis* (comparing it with the way, other case study organizations deal with the environmental challenges), reveals that the organizations differed in the levels at which they responded to environmental challenges. As described in Table 6.6 the organizations spanned both orders of environmental responsiveness.

While all the 11 organizations had state of art pollution control and pollution prevention measures in place, eight of the organizations (Valiance, Cottex, Tripax, Organochem, Mayer, Pharmachem, Sun and Raj) did not proceed beyond the first order responsiveness. However of these eight organizations three (Cottex, Mayer and Organochem) were in a transition stage.

Cottex and Mayer have started to consider the environmental impact of their products. While this did not currently involve introducing new products per se or a radical overhaul of design of their existing products, they were starting to consider removing environmentally hazardous

Table 6.6 Classifying organizations in India into first and second order of environmental responsiveness

| Organization | First order | | | | | Second order | |
	Pollution control	prevention	Recycling wastes	Decreased Resource consumption	LCA[4]	Dev new product	Industrial ecology
Valiance	√	√	√				
Tripax	√	√	√	√			
Pharmachem	√	√	√	√			
Sun	√	√	√	√			
Raj	√	√	√	√			
Cottex	√	√	√	√	√		
Organochem	√	√	√	√	√		
Mayer	√	√	√	√	√		
Endeavour	√	√	√	√	√	√	
ICLL	√	√	√	√	√	√	
Cosmos	√	√	√	√	√		√

treatments from their products or the packaging. Thus though they did not qualify as being at the second order yet, they were however moving towards second order responsiveness in the sense that they had started to consider the environmental impact of their products.

Accordingly Cottex, which makes textiles, had started to look into introducing environment friendly fabrics and was also starting to examine the environmental effect of various dyes:

> *We have a new technology development unit which is working on this project- using inputs like hemp along with cotton. Also in collection of dyes, whether the incoming dyes are environment friendly or not. Specialized groups look at the incoming material, from the quality point of view and also from the environmental point of view.*

Mayer, an electronic manufacturer had introduced changes in packaging process:

> *Earlier we were using Methyl Bromide for the fumigation of the wooden packaging material but now we have switched over to heat treatment of wooden pellets, completely eliminating the use*

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[4] Life cycle analysis has been categorized as first order because while it might be a stepping stone for new product development and industrial ecology, in itself it essentially involves housekeeping exercises and does not thereby (by itself) qualify as higher order responsiveness.

of Methyl Bromide. Methyl Bromide is not good to the health of human beings as well as it is causing ozone depletion.

Organochem, a chemical manufacturer had started a process of examining hazardous inputs in its products:

> *We are also in the business of adhesives so there are both solvent based adhesives as well as water based adhesives. Solvent based adhesives are harmful both to the health of the applicants and also for the environment.*

> *So we are working towards shifting our adhesive to water based adhesives. However while we are aware of this issue and it is very much on our radar screen, it requires a lot of research input before it can be fully accomplished. We have taken up this project within the company and also sponsored other projects with different research institutes to see that wherever hazardous inputs can be removed from products, we should do that.*

Because these three organizations are still working on these changes (at the time of this research) they can be viewed to be in a transitory stage. However as they have not yet successfully accomplished these new product developments they have been categorized as currently being at a first order responsiveness.

However three other organizations in India (Cosmos, ICLL and Endeavour) had successfully extended their environmental responsiveness to the next order. For these organizations their environmental responsiveness went beyond the first order to include activities aimed at industrial ecology and/or sustained efforts towards reducing the environmental impact of their products.

6A.2.1.1 First order environmental responsiveness

As described in Table 6.6 all the case study organizations in India had strategies in place to prevent pollution. Pollution prevention was the first strategy aimed at by all the organizations. The organizations thus had made extensive capital investments aimed at "beginning of pipe" solutions. This was especially true for newer projects and plants. As the manager at Cottex elaborates:

Right in the project stage we decide what is important in this (environmental) front. Like in our Thante unit we have spent almost 55 crore Rupees (US$ 14 million) to this stage to take care of environmental issues at the front end.

This view is replicated in the response of the manager at Valiance:

Our refinery is one of the biggest in the world. By design itself it is one of the most energy efficient refineries. Right at the beginning at the design stage itself the environmental issues have been taken care of, whether it is energy, whether it is emissions even for example it is placed in a location where it is next to the sea so the marine environment also by design itself has been taken care of. These are all designed from that (environmental) point of view.

The response from Organochem further supports this:

So it is made sure in the beginning itself that all new projects which are coming up are complete with whatever that needs to be done in the environmental area. All the capital investments for any new project, all requests have to be routed through the chief of the environment.

However in circumstances where technologies for pollution prevention were not yet available, the next step was controlling and treating the pollutants generated. As the manager at Pharmachem explains:

"The hierarchy of course is whatever you can eliminate totally should be done first, if you can't eliminate you should try to reduce and if you can't reduce then you treat.

This view is supported by the manager at Valiance who states that:

Some of our sites have incarcerators. They have been up set up because there are certain things which we are unable to have a technological solution at the front end. So as generators we then have no choice but to go to one of these options.
The constraints however are technical not economical.

The manager at Endeavour further elaborates the hierarchy of pollution control/ prevention activities:

*Our first R is called **reduce**. Reduce at source. We have a number of ways in which we target waste reduction at source and it reduces the impact on the environment. The next is **reuse**. Whenever we can make use of the same material in the same form, we would do that, to the extent possible depending on the available technologies. Then we have **recycle**, where we will convert into some useful material we can recycle within the system. Then we have **recover** in which we try to recover some items, which are either more hazardous or more valuable. And then final stage is called **renewal** where we try to renew. For instance in our plantations in south India as well in the eastern parts we*

plant those trees in such a way that we always have renewal to the extent of 12-20 percent every year so that we are never actually have deforestation at all.

The organizations in India were observed to have made substantial capital investments to prevent pollution at source, especially in the newer plants. Sophisticated state of art effluent treatment plants formed the next line of defence. Recycling of wastes and reduction in resource consumption was also an important environmental objective. Special significance was attached to water conservation (zero water discharges) and rain water harvesting. Attempts to minimize water consumption featured strongly across all the organizations in India. Consequently water conservation measures such as, plugging leakages, recycling of water and reusing it in the manufacturing processes and rainwater harvesting were reported by the majority of the organisations (see Table 6.7).

Table 6.7 Illustrative quotes regarding water conservation and rain water harvesting in organizations in India

Organization	Quotes illustrating water conservation and rain water harvesting
ICLL (Diversified businesses, including pulp and paper, agri-business etc)	India has got almost 18% of world's population and about 3-4% of the total water on earth so ICLL has a policy that each of its businesses must be most efficient users of water. We benchmark worldwide. Per unit of water we should be the best, not just in the country but in the world. Secondly we ensure that all the sources where we take water from are sustainable. The third policy that we have on water is that we try and discharge zero water out of our factories. So we circulate water within the units. And the fourth is we should be water positive. So what we have done is that we do a lot of rain water harvesting both within and outside the company, so in the process we have become water positive, which means we actually collect more rain water than we use. This may not be true on a unit basis but it is true on a company basis.
Endeavour (FMCG)	We also do activities with communities which involve watershed management because in India there are certain areas where we do not have enough water and therefore we feel it is our responsibility to encourage the communities to retard the path of rainwater. We call it watershed management. We create contour dams and bunds with local communities. This retards the loss of water which percolates into the ground so that the water table in these areas improves.

Organization	Quotes illustrating water conservation and rain water harvesting
	Before we started doing watershed management with the communities, we first practised it ourselves. We knew that we could actually lift the water table and our own consumption of water came down. So we could draw water from the ground without actually depleting ground water.
Cottex (Textile)	We are not supposed to be doing recycling of water by regulation- we have to treat the effluent to a certain extent and discharge out. We have gone one step forward and we are doing recycling of water and that is a good amount, about eighty percent. So we are recycling waste water. Coming back to our Thante unit as I said we have spend nearly 55 crore Rupees to this stage to take care of issues of water treatment, water recycling and water conservation. We have a state of are rain water recharging unit where extensive amounts of rain water collection is being done.
Tripax (Pharmaceutical)	We recycle the wastewater at the generation stages but the other thing is to reduce the quantity of effluent generation, by meticulous usage like for example instead of washing by hose type of operations, we have the, "Rotoballs" the rotating-ball which acts like a rotating spray by which the quantity of water used for cleaning is reduced substantially.
Organochem (Chemical)	We have closed loop operations which recycle water. And we do rain water harvesting.
Mayer (Electronics)	We have gone one step forward and developed rain water harvesting processes in our plants, whatever rain is discharged we are charging to the earth. So basically the ground water level is being maintained. Yearly we are having map reading of underground water table.
Pharmachem (Pharmaceutical)	Water conservation is a very important objective. We do a lot of rain water harvesting.
Sun (Fertilizer)	90 percent of water we use is recycled water. Only 10 percent of water we consume is fresh water. This is one issue where we want to improve further. We have already started rain water harvesting.
Raj (Hotel Chain)	We have a sewerage treatment plant which will work towards seeing that this it is treated properly. The water is then recycled. The recycled water, it can be used either for plants or can be used again for general use, water closets for toilets or water can be used in air conditioning plant , or the cooling towers so that, of course we are not using it anyway when it is coming back to guests contact. But in other areas the water can be reused and recycled. We also do rain water harvesting. So each of the hotels has a system of water harvesting. During rain if there is water that is going down, and just getting wasted, we ensure that water harvesting steps have been made. And so the water is harvested and goes back to the soil rather than getting wasted.

Planting and maintaining green belts, using treated effluent in green belts was reported by all

Indian organisations. This might not seem very significant in a western context where due to

mild temperate climes and soft gentle rainfall throughout the year trees are still abundant in urban landscapes but in India and most other developing countries urbanisation is fast making urban landscapes devoid of trees of any kind and the dry hot climate makes planting and maintaining green belts a laudable effort. The corporate efforts at greening the landscapes are illustrated in the following quote from the manager at Sun:

> *And this entire plant when we started it in 1980, it was a barren land. There was not a single tree, due to alkaline soil, but today it has become an oasis. 35 percent is covered with the green belt.*

> *Regarding environment we are considered one of the models in Uttar Pradesh.*

> *In fact whenever some authorities, the government or some pollution control boards if they want to purchase something from the World Bank or such agencies, they are bringing them here. They want to show that see there is an organisation that is maintaining a very beautiful complex and is an environmental model.*

The programmes aimed at greening landscapes at Raj provide a further example:

> *We ensure that there are enough plants that are grown, not only to see that our gardens are lush green, we have a lot of trees and lots of plants in our properties, we go one step further. We are also greening the surrounding areas of our hotels. We also adopt traffic islands. In Andhra Pradesh, the former chief minister has encouraged lots of adoption of islands at road sides by commercial houses and so the Raj group has adopted a lot of areas, like when you come towards the city, from the airport the entire area is maintained by the Raj Group.*

> *But we have gone one step further. There is a lake near one of our hotels. That lake has now been taken by us on a long lease. The government of India and government of Andhra Pradesh will be putting 2 crores (US$ 500, 000) and we are putting 1 crore rupees (US$ 250, 000). 3 crores (US$ 750, 000) will be spent towards the beautification of the lake.*

> *We have a big plan. A lot of drains empty into the lake, so the water that is coming inside, is polluted. We have set a sewerage treatment plant at the entry point. Present lake will be cleaned by deep filtration. We will be removing all the stilt there, clearing up water-hyacinth plants; we will be cleaning up the lake by putting oxygen generator, so the oxygen will be put into the water. And we will be making sure that the lake is properly cleaned. And then around it we will be planting a lot of trees. We will be improving the bank and we will be putting a lot of trees there. There was a dhobi ghat there where you know washer man used to wash dirty linen which has now been removed from there. Various neighbours have been putting there sewerage inside which has been stopped. So we are working towards improving this lake. This is one of our initiatives that we are doing to see that we help in improving the local environment.*

To summarize the above section, all the organizations in India were actively engaged in pollution control, pollution prevention, waste reduction, decreased resource consumption etc. However for eight of the 11 organizations the current environmental responsiveness did not extend beyond the first order responsiveness. The responses of these organizations regarding the way they deal with environmental issues have been summarized in Table 6.8

Table 6.8 Illustrative quotes regarding first order responsiveness

Organization	Abridged illustrative quotes dealing with pollution control, pollution prevention, waste reduction and decreasing resource consumption
Valiance (Petrochemical)	In some of our old plants we add, additional technology to improve the emissions, reduce the emissions etc. But when we are putting up a new plant, like we have at the Ramnagar refinery, it was put up around six years ago. Today it is by design itself one of the most energy efficient refineries. So in such cases right at the beginning at the design stage itself the environmental issues have been taken care of. The Ramnagar refinery is benchmarked with 54 Shell refineries internationally. According to published reports, it is now the most energy efficient refinery in the world.
Cottex (Textile)	Generally speaking the textile effluent is quite docile. And there are established technologies to treat the water to a usable quality. We have our own effluent treatment plant. When the new plant came up in 1998, we have done a very elaborate arrangement to treat and recharge for the effluent treatment plant right form the first stage of the project. And we have in-house facilities for treatment of wastes. We have done the capacity building within the organisation. We are also working on the concept so that wastes itself is minimized. To see that the effluent at the outset is diluted or minimized.
Tripax (Pharmaceutical)	We recycle the wastewater at the generation stages but the other thing is to reduce the quantity of effluent generation, by meticulous usage like for example instead of washing by hose type of operations, we have the, "Rotoballs" the rotating-ball which acts like a rotating spray by which the quantity of water used for cleaning is reduced substantially. So these are the measures which are used to reduce and make sure that whatever cannot be eliminated, they are segregated and are treated in such a way that the overall impact is minimized. We have also taken a lot of initiatives to reduce odour over the last few years. We have a nitrogen blanketing system so that there is no evolution of volatile organic compounds in the atmosphere.
Organochem (Chemical)	The organisation has a very developed environmental setup. Both at corporate level as well as at unit level where the issues are understood and required action plans are developed and they are taken into the yearly budget and implemented. All the capital investments for any new capital investment, all

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Organization	Abridged illustrative quotes dealing with pollution control, pollution prevention, waste reduction and decreasing resource consumption
	requests are routed through the chief of the environment. So it is made sure, it is ensured in the beginning itself that all new projects which are coming up are complete with whatever that needs to be done in that area. In our own manufacturing cycle we would not only like to go for cradle to grave but in fact we would like to go for cradle to cradle. So within our manufacturing area what we are trying to do is 100 percent recycle.
Mayer (Electronics)	We have divisional environmental objectives, which are reviewed at the top management level periodically. The first priority is given to conservation of natural resources, water conservation and energy conservation. We have quarterly sampling of the atmospheric effluents and yearly we are having map reading of underground water table. Also noise is regularly monitored.
Pharmachem (Pharmaceutical)	The hierarchy of course is whatever you can eliminate totally should be done first, if you can't eliminate you should try to reduce and if you can't reduce then you treat. So that is the worldwide hierarchy you know. But let me tell you that it is only when residual risk goes beyond acceptable limits, that you call it pollution. So there will be no finish line for that. Nothing like, now everything is controlled, nothing beyond that. You know as knowledge grows these lines become more and more stringent. So with the state of the art technology this will continue you know. This is an endless journey.
Sun (Fertilizer)	We are doing lot of recycling of our wastes. We are also doing TPM (total product maintenance). There is no leakage in the plant. By plugging the leakages we are optimally utilizing, the resources. We also have different levels of recycling.
Raj (Hotel chain)	The garbage is divided into two. One is the dry scrap, which is basically you know the newspapers, the boxes the cans, the bottles. These of course have to be treated separately. We have people who come in and take them away and we ensure that these people get rid of it properly or in some case recycle them. And the wet garbage is properly recycled. We have a sewerage treatment plant which will work towards seeing that this it is treated properly. The water is then recycled. Whatever smoke or gas that is coming out is properly filtered and taken care of. So we have all those measures very much in the hotel. So that everything that is if it is the boiler or it is the kitchen the smoke is going to various filters and when it comes out it is not going to be a pollutant or it is not going to be causing any harm to the environment.

6A.2.1.2 Second order responsiveness

For the three organizations (Endeavour, ICLL and Cosmos) that went beyond the first order

responsiveness meeting the requirements of first order was a minimum. They accordingly had

detailed programmes in place as regards first order responsiveness as the following quotes illustrate:

Cosmos

> *In our focus on modernization we are constantly aware of the fact that when we are modernizing, our facilities need to pass through the filter of environmental responsibilities. All our modern mills have been built on the environmental filters. In 1984, we started an extensive waste recycling plan. We now pass the gases generated during steel production through the waste recycling plant to recover those gases. These gases are then used to generate power. Coal tar and waste oil which are wastes that come out from the steel making process are injected in the blast furnace as fuel. So the waste is getting recycled extensively.*

ICLL

> *We are also working towards being carbon positive. Every year we calculate how much energy we use and if you apply IPCC factors to the type of fuels that we use, so we calculate how much carbon dioxide we are releasing into the atmosphere. We have this huge forestry program for our paper industry. Last year we had finished 29500 hectares of plantations. Now that plantation would sequester roughly 85-86% of the carbon dioxide we generate. We are continuing with our forestry programme so this year we have done another 12000 hectares and by end of this year we should actually be carbon positive. That means whatever CO_2 we sequester, would be more than whatever CO_2 we would actually be releasing to the atmosphere.*
>
> *We also have a company policy that we would like no waste to leave our premises to go to municipal site. Therefore at all our sites we must find some user who can use that waste as a raw material to be recycled.*
>
> *So as of last financial year approximately 80% of the total solid wastes operations have been recycled and we are very hopeful that when we report next year we should be recycling 99-100% all the solid waste by becoming a zero solid waste company.*

Endeavour

> *We always like to control at the source. Now every time it is not possible to do that. If there are some other materials that have to go to end of pipe treatment, we then put up the reverse osmosis plant and tertiary facilities to recycle the effluents water for our own irrigation of land. We have converted barren lands to green within our own premises and around our premises.*
>
> *Energy conservation is continuing from (19)96 onwards. Not only we have saved money for the company but the effect on the environment has been drastically removed in terms of carbon reduction and there has been a reduction in costs to the tune of 65% in a matter of six years while the production and the volumes have actually gone up. The company has grown and despite that the overall actual production costs have actually come down, the actual use of energy has come down.*

Thus while these three organizations (Endeavour, ICLL and Cosmos) have been successfully pursuing strategies that seek to reduce the environmental impact of their processes, they have also extended their environmental responsiveness to the higher order.

Environmentally beneficial new product development: ICLL and Endeavour have successfully developed new products which have a reduced impact on the environment. Endeavour has developed a detergent which reduces the amount of water needed for washing clothes by half. This development is particularly relevant for Indian conditions because the normal practice of washing clothes in India involves manual washing using water in buckets (as opposed to the western practise of washing clothes using washing machines). Endeavour has also developed a detergent bar which has been made without minerals; NIL MIL BAR (most major brands of detergent bar in India use minerals). Endeavour's NIL MIL BAR extensively reduces silting in water. An interesting aspect about these product developments is that consumers in India are not currently demanding products with reduced environmental impact. Neither does Endeavour's extensive market research programme predict that happening in the near future. However even though there is no market demand for environment friendly detergent Endeavour has still developed a phosphate free detergent that consumes half the amount of water needed by conventional detergents. However due to lack of consumer demand for environmentally beneficial products, Endeavour does not yet sell these products on their environmental attributes. Instead while the products have obvious environmental merits, Endeavour currently sells these products on the basis of convenience offered. This is illustrated in the following extract from the interview with the manager at Endeavour:

> *The way we advertise the new Super Wash which we have made is that … as you know in India, people wash clothes in buckets. We now tell them you can wash double the quantity of clothes in one bucket of water.*

If you have see the latest ads, people used to carry water from long distances two-two buckets in villages and now that lady has to carry one bucket of water for carrying out her chores and washing clothes, daily washing of clothes.

Now how this has happened? This has happened because the product formulation has been changed by us, so that you require less water, half water. Now we will not advertise based on the fact that it is more environment friendly. You are saving water for the country and therefore you should do it.

Consumers will not understand that. *So we are telling them that it is better for you because you have your daily chores and carrying two buckets of water everyday from a river or a lake to your home, almost between 1-5 km of distance, that sort of a convenience will be offered just because you are using this product. You will be able to get the same quality of washing by only one bucket instead of two buckets.*

However we would not like the unnecessarily sort of promote...that we are doing this because we are trying to save the environment or that we want to actually upgrade the environment. While it is actually happening so. We are making thousands and thousands of tonnes of that material which goes to the market and people will use it, are using it, they will definitely need less water, and they are using less water.

So what we do is we will keep developing the products but we will keep it under wraps unless it actually makes sense for us to tell the consumer at the right time at the right place and if it is in our advantage to state the environmental benefits. Till then we want them to evaluate based on the convenience. Let them get the advantage but it is still beneficial to the environment. This is one approach

ICLL is the only company in India to have developed chlorine free paper. They have also been successful in initiating sustainable forestry programmes. ICLL has also lead the way in developing eucalyptus clones which yield more pulp, have shorter felling cycles and can be grown in wastelands. Thus through developing an alternative source of pulp they claim to protect the virgin forests from deforestation. They have further pioneered the replacement of hazardous metal based inks with water based inks in printing. Similar to Endeavour's experience these environmentally beneficial new products have been developed despite the absence of consumer demand.

Industrial ecology: ICLL and Cosmos are also actively engaged in going beyond initial levels of recycling and have elaborate projects in place which aim at industrial ecology. Industrial ecology consists of industries that use each other's waste products as inputs and thereby seek to minimize environmental degradation (Shrivastava, 1995a). These projects require

substantial capital investments. They also demand environmental vision, and a deep rooted

commitment from top management (Shrivastava, 1995a). The project at ICLL involves setting

up a brick construction plant which used the fly ash generated from their power plants[5].

Cosmos Steel undertook a detailed expansion programme which aimed at industrial ecology.

They set up a cement plant to use slag as an input. Slag is a waste product of steel

manufacturing. In the cement plant set up by Cosmos, slag replaces limestone as an input. The

following Table (Table 6.9) illustrates the second order environmental programmes at

Endeavour, ICLL and Cosmos.

Table 6.9 Second order environmental responsiveness at Endeavour, ICLL and Cosmos

Organization	Second order responsiveness	Illustrative quotes
Endeavour	**New product development**	One of our products is detergent bars. In India people wash clothes by using the bars. We were earlier using minerals in the bars. The minerals in our bars were affecting the ground water resources. After these bars are used the water goes into the drains, it get silted. So we thought, why can't we develop a technology which will actually make the bars mineral free. Make a NIL MINERAL BAR. So we developed NMB, which is the bar which is still doing the same job, it functions like the same thing, it is still as effective but it does not use minerals. And to that extent the effect on the environment is reduced and eliminated.
ICLL	**Innovations in inputs**	We are in the paper business. So to get raw materials, we either have to import the pulp or buy whatever little wood is available, which obviously because everyone is hankering for the same wood the prices are going up and in any case that wood would not be available for long. So ICLL instead of directly importing the pulp took the passage of developing better clones, which will give you a very high yield and very short felling cycles. We have developed some very special clones in eucalyptus. The eucalyptus that ICLL has developed gives more than 100 tonnes of wood for every hectare in a four-year cycle. The felling cycle has also been shortened by further development. Furthermore we are not using prime agricultural land for our plantations. Our clones have been developed to grow in tribal wastelands, which are barren. Roughly 20 percent of this would be social forestry on

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[5] The efforts at ICLL and Cosmos have been classified as industrial ecology (rather than as merely first order resource recycling) because even though their waste products are not being technically sold to or used by "other" industries, yet they have set up **separate** industrial operations which are distinct from their main business operations (for example the investment in the cement plant in case of Cosmos Steel and the brick plant in case of ICLL) so as to be able to use the waste products effectively. The investments in these new industrial operations have been made with the intention of effective utilization of their waste products. This is in agreement with the spirit of industrial ecology.

Organization	Second order responsiveness	Illustrative quotes
		tribal wastelands to support tribals.
	New product development	We are the only people in the country who at this moment have the elemental chlorine free paper (ECF). The chlorine free paper that ICLL produces, we do not really get a very high premium on that but we do it because it is more environmentally friendly. However gradually what is happening is that because of proper communication a lot of people in the food industry have switched over to this paper. Now, not just the people who use it for packaging food but also other manufacturers are selling their paper cups made from our ECF paper with ECF written on the cup.
	Redesigning existing products to decrease their environmental impact	We have also done a lot of work to remove pesticides from tobacco cultivation. We are also working towards removing hazardous substances from our products. One successful project is in printing, metal-based inks have given way for of water-based inks.
	Initiating industrial ecology	At a stage when fly ash was not mandated to be removed from our power plants we did a lot of work or in terms of developing bricks from it, which were then used for construction.
Cosmos	**Initiating industrial ecology**	Slag is a thing which is generated from steel making. What we have done is we have setup a cement plant which uses the slag base. So you are using waste to produce something productive other than letting it go waste. But you need to do a lot of investment. You need to develop the technology, you need to do a lot of prior work, I am personally involved this slag thing since five years back. It is a substantial investment. But rather than dumping the slag somewhere like it was happening earlier, we are using it for something productive.

6A.2.2 Categorizing organizations in New Zealand

Similar to organizations in India, all the case study organizations in New Zealand had

standard environmental management practices in place (see Table 6.10). However awards (for

distinguished environmental performance) were not commonly reported by organizations in

New Zealand either during the interview or in the environmental/ sustainability reports.

Benchmarking environmental performance against other domestic/international companies

was also not widely practiced in the case study organizations in New Zealand. Furthermore

while the case study organizations in New Zealand had environment management systems in

place, it was not necessarily always ISO 14000. Some of the organizations (Fabio, Hercules, Solitaire and Marion) had developed their own EMS.

Table 6.10 Standard environmental measures in New Zealand organizations

Organization	EMS	Environment Policy	Environment Report	Environment division	Employee environment training	Environmental benchmarking
Atlas	√	√	√	√	√	
Skyes	√	√	√	√	√	
Shield	√	√	√	√	√	
Fabio	√	√	√	√	√	
Phoenix	√	√	√	√	√	√
Hercules	√	√	√	√	√	
Amity	√	√	√	√	√	
Solitaire	√	√	√	√	√	
Sunrise	√	√	√	√	√	
Marion	√	√	√	√	√	
Keratin	√	√	√	√	√	
Waite	√	√	√	√	√	√

Thus as described in Table 6.10 all the organizations in New Zealand had environment management systems, environment policies, environment/sustainability reports, environment divisions and provided employee environmental training. However though the New Zealand organizations had similar environmental profiles in regards to standard environmental measures, like the organizations in India they too differed in their levels of environmental responsiveness (see Table 6.11). The majority of the case study organizations in New Zealand were at first order of environmental responsiveness. Thus nine of the case study organizations in New Zealand (Shield, Fabio, Amity, Keratin, Atlas, Hercules, Marion, Skyes and Waite) directed their environmental responsiveness primarily towards efforts aimed at pollution control, pollution prevention, waste reduction and decreased resource consumption. However four of the organizations in this group are in a transitory stage. While their current environmental activities are primarily aimed at first order responsiveness, they are in the process of extending their responsiveness. However the changes that these organizations have

currently made (or are in the process of making) while they do extend beyond purely first order pollution control and prevention, fall short of qualifying as higher order responsiveness. These four organizations have thus been categorized as currently being at first order but in the process of transition towards higher order responsiveness.

Thus Waite, which is an electronic and defence equipment manufacturer, has made changes in soldering and metal plating process to its finished product. These changes have been made in order to comply with European WEEE directives (waste of electrical and electronic equipments), and involve removing lead from the soldering process and chromium from the metal plating process.

> *We are in the process of changing our soldering process to lead free soldering. We are also working on eliminating chromium from our metal plating processes.*

The core product however remains unchanged. Developing an environmental new product involves designing or redesigning existing products so as to reduce their environmental impact (Pujari, Wright, & Peattie, 2003). However the current changes at Waite do not involve redesigning the product but involve making adjustments to the finishing of the final product. These adjustments, though environmentally beneficial, are not new product development per se. For this reason (and the fact that Waite is still working on these changes), these effort have not been categorized as a new product development effort in this research. However these activities at Waite do qualify it to be categorized as moving beyond the activities that constitute purely first order responsiveness and being in a transition towards higher order responsiveness.

Similarly Skyes, which is in the construction industry, is currently primarily dealing with trade wastes as major environmental issues. However it is considering examining the environmental impact of its products during and after their useful life is over.

We are looking at opportunities to use wastes that we generate on our sites. For example when a house is sold there are several tonnes waste of building waste that are left behind. We treat it and in all goes in a landfill now. So the government through its waste strategy wants to reduce that and we will have a role in that and we, are exploring opportunities whereby we can offer the product such that it enables people to use our product more efficiently and reduce waste.

On similar lines Marion, an electricity distributor is planning to analyze the potential of generating electricity from landfill gases:

We have been approached by the city council, looking at the land fill sites – there's an opportunity there to use the landfill gases for electricity generation. So yeah, we are very interested in that.

Finally while Atlas, a dairy firm currently considers effluent treatment and prevention as its major environmental focus, it is also involved in life cycle analysis (LCA). The efforts at LCA have resulted in reduced packaging and also in exhibiting the recycling capabilities of the packaging. These efforts (aimed at reducing packaging and showing the recycling ability of packaging) however on their own, do not qualify as higher order responsiveness.

LCA is the one we are currently doing. We do look at the impact of our packaging.

We always endeavour to ensure that all of our products show the recycling ability of the packaging. In all kinds of areas recycling information is there on the packaging for the likes of those who….. to assist people in the disposal of packaging after the product is consumed.

These four organizations while they are extending their environmental responsiveness beyond pure first order responsiveness, have not yet reached second order responsiveness. They have thus been categorized as being at first order responsiveness.

However three of the organizations in New Zealand (Solitaire, Sunrise and Phoenix) have extended their environmental responsiveness to the second order. All three of these organizations have introduced new products with reduced environmental impacts. In addition Sunrise and Phoenix have also directed their efforts towards projects aimed at industrial

ecology. Table 6.11 describes the levels of environmental responsiveness in the case study organizations in New Zealand.

Table 6.11 Classifying organizations in New Zealand into first and second order of environmental responsiveness

Organization	First order					Second order	
	Pollution		Recycling wastes	Decreased resource consumption	LCA	Dev new product	Industrial ecology
	control	prevention					
Amity	√	√	√	√			
Keratin	√	√	√	√			
Fabio	√	√	√	√			
Shield	√	√	√	√			
Hercules	√	√	√	√			
Skyes	√	√	√	√	√		
Marion	√	√	√	√	√		
Atlas	√	√	√	√	√		
Waite	√	√	√	√	√		
Solitaire	√	√	√	√	√	√	
Sunrise	√	√	√	√	√	√	√
Phoenix	√	√	√	√	√	√	√

6A.2.2.1 First order responsiveness in New Zealand organizations

All the 12 case study organizations in New Zealand had comprehensive systems in place for dealing with solid, liquid and gaseous effluents. The organizations in New Zealand (like the organizations in India) had detailed environment management systems that aimed first at pollution prevention and then controlling and treating the end of pipe pollutants. The manager at Atlas elaborates the process:

> *We try to prevent pollution where we can. We have got quite tough targets around solid wastes production, wastewater volume reduction, energy reduction, water use reduction, and loss reduction. Our current targets for land fill waste is to have that reduced it by 75% at the end of this season. We look at the waste product from our processes and how we can minimize those. Where we can't reduce we look at reuse and recycle so that reduction targets are sort of final part of that after others have been exhausted.*

This is supported by the manager at Amity:

> *Our environmental management systems monitor and manage the impacts and try and minimize them, manage them. We are using a proactive approach.*

> *We look at each area throughout the year and create action plans based on the hazards being developed from the waste that is being created and then we look at ways of dealing with that waste such as recycling and composting. So we set reduction plans so that we can reduce the waste being created.*

Another point of similarity with the organizations in India, was that the environmental constraints were more comprehensively considered in the newer projects. As the manager at Solitaire explains:

> *It would be fair to say that those operations that we started since 1991 have had more rigorous environmental assessment carried out than those that were commenced prior to 1991. So majority of our operations work under those licenses which were granted prior to 1991. We are trying to sort of retro fit the EMS to those mines.*

> *For those mines that we have stated post 1991 or since in the future, we have been able to fit the appropriate environmental measurement systems the EMS to those operations we started since. So there are two different ways through which we deal with those issues. One is to start from scratch on looking at a clean slip of paper and do things properly at the onset and the other is to bring up the existing or the historical operations to the standards which we now aspire to achieve.*

The manager at Sunrise further supports this:

> *One thing happening for the bigger projects that are coming through is that the environmental values of the company will then fly into how that plant is designed in the first place. So there maybe extra costs in the design that we take on right at that time so that we can have a good long term building that can function in that area and not cause any grief to the neighbours and fit well in the long term.*

> *A well structured project will build it (environment) right into the design of the project at start.*

However an interesting difference from the organizations in India was that in response to the second question *("how does the organization deal with the environmental issues")* managers in New Zealand based organizations seldom started the explanation with the actual processes (i.e. is by providing details of pollution control process, pollution prevention, new product development etc). Instead in all the cases a standard response to the way their organizations dealt with environmental issues pointed towards *"by meeting the resource consent requirements"*. Further probing revealed that managing environmental issues in New Zealand organizations is a continuous and relentless regime of measuring and reporting discharges and

checking them against the resource consent requirements. Detailed documentation and

extensive paper tracks are deemed essential. Thus the process of dealing with environmental

issues in the case study organizations in New Zealand was largely dictated by the resource

consent requirements. In cases where the resources consents demanded waste reduction,

prevention was the preferred strategy, and where the consents demanded end of pipe

treatment, pollution control was the chosen strategy. Table 6.12 illustrates and provides

further details of the first order responsiveness in the case study organizations in New

Zealand.

Table 6.12 Illustrative quotes regarding first order responsiveness in New Zealand organizations

Organization	Abridged illustrative quotes dealing with pollution control, pollution prevention, waste reduction and decreasing resource consumption
Amity (Food industry)	Our environmental management systems monitor the consent requirements. We manage the impacts and try and minimize them. We treat our wastewater etc. before it gets out to the council and we are looking at our waste streams before it goes in the rubbish bins. We look at each area throughout the year and create action plans based on the hazards being developed from the waste that is being created and then we look at ways of dealing with that waste such as recycling and composting. So we set reduction plans so that we can reduce the waste being created. When you look at all of the wastes coming from our sites, we actually managed to reduce our total spend on solid wastes.
Keratin (Wool scouring)	They (the discharges) are measured – they are measured – they are tested and… but the problem is our product going through varies all the time. So it's a continuously changing cycle and so we cannot really guarantee it's going to meet the consents unless we continuously test the discharges.
Fabio (Food distribution)	These are achieved through effective site-specific consent management practices. An "*Envirowaste*" recycling programme has been established to encourage both staff and industry recycling in order to reduce land fill and promote good environmental practices. These activities include, pallet wrap recycling, cardboard recycling in conjunction with the local milk man and aluminium can recycling in conjunction with the local scout group.
Shield (Petrochemical)	It involves implementing and continuously reviewing plans and procedures for ensuring compliance with all locally applicable environmental regulations The environmental impact of products is monitored by a dedicated team of global product stewards, toxicologists and ecotoxicologists. Their collective

Organization	Abridged illustrative quotes dealing with pollution control, pollution prevention, waste reduction and decreasing resource consumption
	work is reflected in the content of material safety data sheets.
Hercules (Retail chain)	We have a high level policy statement that commits our business to environmental management systems and then in terms of waste we have a waste minimization and a recycling programme.
Skyes (Contruction)	At site level particularly those that generate offsite wastes, some form of environmental management plan is an essential part of the system. This is to identify the environmental risks, and see if the sites are environmentally safe. So on those sites there will be requirements, for those emissions have to be controlled by the resource consents at those sites.
Marion (Electricity distribution)	Environment management involves meeting the current consent requirements. We also have the hazardous substances legislation coming up. That actually means planning, looking forward, looking at trends so that we can minimize them. We save significant amounts of metals by recovering old transformers and making the system more efficient. The spin off is you make yourself more efficient, the way you do it and you've been also in the process of saving base metals. We have got an energy management programme and waste management program. We've just replaced our computer screens with flat screens and there's a thirty percent energy saving in the flat screens. Recycling thing for example has been a part of our culture for 7 – 8 years.
Atlas (Dairy)	We try to prevent pollution where we can. We have got quite tough targets around solid wastes production, wastewater volume reduction, energy reduction, water use reduction, and loss reduction. Our current targets for land fill waste is to have that reduced it by 75% at the end of this season. We look at the waste product from our processes and how we can minimize those. Where we can't reduce we look at reuse and recycle so that reduction targets are sort of final part of that after others have been exhausted. The focus of our eco efficiency programme is to reduce usage of packaging We are at the moment doing a life cycle analysis that's been around for a year. Quite an extensive piece of work. We have also been involved in the past on what we call the "food miles assessment", which is assessing the impact of getting products to market from the different parts of the world.
Waite (Electronic and defence equipment)	Regarding waste disposal and that sort of thing like any other organization we are driven by compliance requirements. We are really pretty heavily driven by the Steering Group we have put into that programme. They meet regularly once every 3 or 4 months and we will sit down and we will review all of our currently identified environmental objectives and targets and decide how we are progressing with them and then if there are issues, then depending on what the issue is then we will talk to the appropriate management structure to see if we can do something about those issues. We also as a matter of course try to identify any new issues that might have arisen and those are also discussed and we make a decision as to whether they are significant or not. If they are significant then we would add them to our list of

Organization	Abridged illustrative quotes dealing with pollution control, pollution prevention, waste reduction and decreasing resource consumption
	target objectives but so to be frank ever since the programme started we haven't identified any new issue - not major ones.

The three organizations in New Zealand (Solitaire, Sunrise and Phoenix) which have been

categorized as second order responsiveness met the requirements for first order

responsiveness as a given. Table 6.13 indicates the efforts of these organizations towards first

order responsiveness.

Table 6.13 First order environmental responsiveness at Solitaire, Sunrise and Phoenix

Organization	Abridged illustrative quotes dealing with pollution control, pollution prevention, waste reduction and decreasing resource consumption
Solitaire (Mining)	We have re - vegetation specialists, we have resource consent specialists, we have hydrologists who deal with water management in the broadest sense, we have system analysts who are working on the environmental management systems and the measurement of our performance and other specialists such as GIS specialists.
Sunrise (Fertilizers)	Well you've got a regulatory constraint, which is obviously makes sure you have got the resource consents for those sites and we certainly got to minimize adverse effects policy Because you can measure down to very fine levels now and there is better instrumentation to do so, there is a lot of recording continuously going on and so it shows any glitch that you have and the way the consents are worded now any spike in the results is likely to be a breach of the consents
Phoenix (Electricity generation and distribution)	Our operations are governed by the EMS. Operations are managed using a distributed control system displaying real-time and near-time information such as water levels, flows and certain air and water quality parameters. Alarms indicate when parameters are approaching and/or deviate from set limits including resource consent conditions. To ensure continuous improvement in environmental management we have in place procedures to monitor environmental performance and to take appropriate action where required.

6A.2.2.2 Second order responsiveness in New Zealand organizations

As Table 6.13 illustrates the environmental responsiveness at Solitaire, Sunrise and Phoenix

included pollution control, prevention, initial recycling and waste reduction activities.

However the environmental activities at these three organizations went beyond the first order.

Environmentally beneficial new product development: All three organizations had invested

in environmentally beneficial new product developments. Sunrise, a fertilizer manufacturer

has introduced a radical new product ENVIRO, which inhibits nitrate leaching. Leaching

results from the application of fertilizers to farmlands and leads to nitrate absorption in

ground water and nitrate runoffs into waterways. This contamination of waterways and

ground water through nitrate leaching is a major public concern in New Zealand. ENVIRO

seeks to address the widespread problem of leaching:

> *That's where ENVIRO development has really changed the game around. It looks at the whole nitrogen cycling system. It looks at the microbial actions that are occurring that trigger that system and looks at the time of the year that leaching occurs. It uses nitrification inhibitors to make sure that nitrogen carries through winter. Use of nitrification inhibitors and a whole progress around the timing and the type of properties and the grazing, that's all become a part of the package. So we look closely at our cycling system and ENVIRO kind of intervenes into what normally would have happened to prevent losses downward as in nitrate leaching or upwards as it is as gaseous losses. So ENVIRO prevents nitrate leaching out those winter months so it's there in the spring and that gives you the benefit of maximising the nutrients in the system.*

Solitaire a coal mining company has started manufacturing biodiesel, a high quality renewable

fuel made from waste and used vegetable oil.

> *Until recently New Zealand has been slow to take up biodiesel, mainly because of the price. Petroleum diesel has always been cheaper than petrol and until recently it has not been economically viable to produce biodiesel in commercial quantities. However this has begun to change. In 2007 the New Zealand government decided that from April 2008, biofuels would form an increasing percentage of transport fuels. We plan to produce more than half of the government's 2012 target for biofuel use.*

Furthermore Solitaire has also invested in innovatively producing pellets from waste pine

wood residue for burning in smokeless pellets fires. These low emission wood pellets comply

with the most stringent clean air standards and intend to replace coal as a heating source

especially in urban areas.

> *Our Earth wood pellets are produced from 100 % waste pine wood residue, for burning in smokeless pellet fires and comply with the most stringent clean air standards because they have very low emissions. Home heating is the major source of winter air pollution in New Zealand's towns and cities. Burning solid fuels such as wood and coal on domestic open fires and in older log burners is no longer acceptable in areas of New Zealand that suffer from poor air quality. Our development supports the move towards quality renewable fuels. The Earth range of wood pellet fires have very low emissions, making them ideal for urban use- particularly relevant*

given the new national environmental standards for air quality. Earth Pellets are one of the most environmentally sustainable home heating solutions.

To cope with the challenges posed by climate change, Phoenix energy, which has traditionally relied on coal fired thermal plants, has expanded its product portfolio to include energy generation through wind turbines. Phoenix energy's website reports that the current site of the wind farm at Phoenix energy has been acknowledged as one of the best wind farm sites in the world by the Energy Efficiency and Conservation Authority Report (2001). This site has the potential to provide up to 12 % of New Zealand wind energy potential. Currently this wind farm generates 8.65 MW of electricity. Phoenix however has set a target to increase the energy generation through wind power to 300 MW by 2015. This involves further developing this site and also exploring other suitable wind farm sites.

> *Wind farms have an important role in meeting our future energy and environmental needs and we continue to identify and evaluate potential sites for wind farms throughout the country. Wind farms lessen the need for fossil fuel generated electricity. This reduces greenhouse gas emissions and support New Zealand's commitment to the Kyoto protocol. The South site is recognized for its significant wind energy potential. The wind farm provides enough power for 4200 homes.*

Phoenix energy is also working with partners to develop up to 150MW of geothermal energy and 10 MW of energy through mini- hydro plants. It is also working towards commercializing wave and tidal energy in New Zealand. These projects are however still in the pipeline and have not been evaluated for the purpose of this research.

Industrial ecology: Apart from environmentally beneficial new product development, Phoenix energy and Sunrise also have projects that aim at industrial ecology. Phoenix energy has collaborated with a pulp and paper plant to set up a power plant. This power plant is fuelled by wood waste biomass from the pulp and paper plant. The pulp and paper plant not only uses the electricity generated from waste wood (that would have otherwise gone into

landfill) but also the steam generated during electricity production is used for wood processing.

Industrial ecology at Sunrise, a fertilizer manufacturer, involved replacing the super-phosphate rocks, which it currently uses as an input with treated human faecal matter. Sunrise imports the phosphate rocks, primarily from developing countries. Mining of these rocks and dumping of associated waste causes a lot of environmental degradation in the countries from which these rocks are sourced. Sunrise invested extensively in an industrial ecology project that would replace the imported environmentally fragile input with human excreta in collaboration with the local council. However even though the project is technically successful and has no associated health repercussions, Sunrise had to shelve the project because the new product was not acceptable to the consumers.

Though Sunrise's efforts at industrial ecology are currently commercially unviable however they have been included in this research because of the fact that Sunrise did invest in projects aimed at industrial ecology. Also the fact that the project is technically competent and meets the health and safety requirements implies that it may prove to be commercially viable in the future. Table 6.14 details the industrials ecology projects at Phoenix and Sunrise.

Table 6.14 Industrial ecology at Phoenix energy and Sunrise

Organization	Higher order responsiveness through industrial ecology
Phoenix Energy **(Electricity generation and distribution)**	The plant has been set up in collaboration with Star pulp and paper company. It is fuelled by wood waste biomass from Star. The waste wood is a combination of bark, sawdust and chips, mainly pine with some eucalyptus. The wood waste has no longer to be dumped in large quantities into the landfills. The fuel is burnt to produce steam for a 40 MW steam turbine. The electricity is mostly used on site. Additionally the heat from the steam is used for industrial purposes such as drying timber in kilns.
Sunrise (Fertilizer)	As a strategic issue we actually work very hard on waste products and using them as fertilizers because in the end you are bringing nutrients from the other side of the world. We had extensive discussions with local councils, if you could better utilize nutrients that are already in New Zealand. We saw that as very very responsible project. We have had a number of set backs in that because it involves human waste management issues. We have had quite a lot of difficulty in getting those products accepted. This is the irony- by the final market place. So the final market place likes clean and green, but not if it is a human based or so it becomes quite a selfish market place in some ways.

The next two chapters (6B and 6C) discuss the drivers of corporate environmental responsiveness in India and New Zealand respectively.

DRIVERS OF CORPORATE ENVIRONMENTALISM IN INDIA

Summary

This chapter reports the findings regarding the drivers of corporate environmentalism in the case study organizations in India. In doing so it integrates the findings pertaining to categorization of corporate environmentalism (into first and second order responsiveness) in chapter 6A with the research questions specified in chapter four.

The chapter commences with a brief recapitulation of the research questions as specified in chapter four:

Central research question

What drives corporate environmentalism in business organizations in developing and developed countries?

Sub questions

1. Who are the stakeholders who can leverage a firm into being environmentally responsible in a) developing countries and b) developed countries?

2. What is the role of institutions (government, professional associations, media and public opinion) in driving corporate environmentalism in developing and developed countries?

3. What is the role of firm specific resources in influencing the adoption of corporate environmentalism in developing and developed countries?

The sections below sequentially explain the drivers for first and second order corporate environmental responsiveness as observed in this study.

6B.1 Drivers of Corporate Environmentalism in India

6B.1.1 Regulations as drivers of corporate environmentalism in India

As described in section 6A.2.1 the case study organizations in India had made substantial capital investments in developing beginning of pipe solutions and in sophisticated effluent treatment plants. These proactive responses and the state of art effluent recycling facilities went way beyond local regulatory requirements. Interestingly while all the organizations in this study reported their environmental responsiveness being beyond compliance, the majority of the organizations however did not credit their environmental responsiveness to local environmental regulatory requirements. This is despite the fact that there are comprehensive environmental regulations (Environment Protection Act, 1986) in place in India. The findings further reveal that the problem lies, not with the lack of existence of regulatory framework, but with an utter and a glaring lack of implementation of those regulations. This telling quote from the manager at Organochem reflects the views of the majority of the managers interviewed:

> *India is the most enacted but the least acted upon country.*

Thus although there is an elaborate environmental regulatory framework in place in India, but the lack of a very important component; implementation of the enacted regulations, prevents regulations from becoming a driving factor. This is further illustrated by the following observation from the manager at Endeavour:

> *India has some of the best environmental legislation in the world. Regulation is very very bulky, very well defined. The environmental regulation, it is very comprehensive.*
> *The problem lies only in terms of implementation and the lack of will on the part of enforcement agencies that enforce it.*

It is also mirrored in the responses of the managers at Cottex and Tripax respectively:

> (Cottex)
> *The regulations are quite appropriate. What is lacking is proper implementation of this. What is important is how much of this is being implemented and monitored properly. That is not done.*

(Tripax)
The legal requirements are at par with any international requirements.

Now it is up to the company to abide by that or comply with that. There are ways and means of not complying with that also, which many of the companies try to do. Environmental compliance in general in India is not of very high order. Implementation is lacking.

Furthermore because of ineffective monitoring of regulations there were no penalties associated with non compliance. This lack of an effective implementation regime was experienced as a de-motivator as this extract from the interview with the manager at Cottex elaborates:

Regulations should have a rule to give the motivation or reward to industries which are going beyond the mandatory norms. Instead of that what is happening, in absence of effective implementation if we are doing recycling and our competitor is not doing the recycling, not even the basic requirements of the local laws then he definitely is much more cost effective than us. This becomes quite de-motivating factors some times.

Thus a decoupling between two important components of coercive institutional elements (the existence of regulation and the enforcement of regulations) has lead to regulatory compliance not becoming an institutionalized norm in India. There was perceived to be no legitimacy being bestowed due to conformance nor was a loss of legitimacy perceived due to non compliance with regulations. Table 6.15 provides details of the responses regarding the lack of implementation of environmental regulations in India.

Table 6.15 Implementation of environmental regulations in India

Organization	Abridged illustrative quotes regarding existence of regulatory framework but lack of implementation in India
Endeavour (FMCG)	India has some of the best environmental legislation in the world. It is updated very frequently. This up gradation has started only after Bhopal tragedy before that even that was very slack. Regulation is very very bulky, very well defined. The environmental regulation it is very comprehensive. The problem is about enforcement. The problem lies only in terms of implementation and the lack of will on the part of enforcement agencies that enforce it.
ICLL (Diversified	In India- (laughs) there is regulation in India, which does help. It gives you a basic premise to base yourself on. You have the basic minimum that must be

Organization	Abridged illustrative quotes regarding existence of regulatory framework but lack of implementation in India
businesses, including pulp and paper, agri-business etc)	achieved, that must be done. But it is known in India that even this can be managed. This means that you can manage the regulations (laughs). And you can take … if you want, one can take calculated risks.
Cosmos (Steel)	The regulations are aligned to whatever are the global standards. But sometimes what happens is... *(leaves it unsaid)*. Implementation of the regulations has to be a baby of the corporate. I think it has to be continuously done irrespective of the... *(leaves it unsaid)*. What we do at Cosmos is because of our inherent consciousness of what we need to do and regulations maybe act as a guideline.
Tripax (Pharmaceutical)	The legal requirements are at par with any international requirements. Now it is up to the company to abide by that or comply with that. There are ways and means of not complying with that also, which many of the companies try to do. Environmental compliance in general in India is not of very high order. Implementation is lacking.
Cottex (Textile)	The regulations are quite appropriate. What is lacking is proper implementation of this. What is important is how much of this is being implemented and monitored properly. That is not done That is one of the biggest lacuna of our system. The regulations are good but there should be a fair amount of implementation program. Implementation is the weak link. Regulations are not implemented uniformly everywhere - it should be done.
Organochem (Chemical)	(Laughs) I would say, I would rather quote from one of our very well known environmental lawyer He had said that, I quote "India is probably the most enacted but least acted upon countries". The laws are very well made but I think there is a lot of scope for improvement in area of implementation.
Sun (Fertilizer)	The regulations are okay. The implementation is … aaa… that is the issue to my mind.
Mayer (Electronics)	As per the nomenclature in India we have 3 categories of the industries red, orange and green. Mayer falls under the category of green. The green category is the category which does not generate hazardous wastes. All the rules and regulations of India are already implemented by us.
Pharmachem (Pharmaceutical)	They (environmental regulations) are very well defined, but implemented… well- I do not know. I would not like to make any comment on that because it is very difficult to say… – because there are a number of regulations, then a number of areas and different regulatory bodies are functioning, various state pollution control boards - so to make a sweeping statement that they are not implemented properly is also not correct and to say that they are all implemented very well is also not correct.

Organization	Abridged illustrative quotes regarding existence of regulatory framework but lack of implementation in India
	The administrative machinery cannot reach every nook and corner. There will be always that, some sort of a lacuna.
Valiance (Petrochemical)	In India I must say that as far as large organisations which are at the cutting edge like Valiance, tend automatically to be ahead of regulations. In fact in India, many times it is only after companies like Valiance bring in some technology, demonstrate something that regulations may get created. So regulation as such, I don't see as being a reason for anything. We are far beyond that.
Raj (Hotel chain)	The implementation is an issue. It has been a little slow in the past but at present implementation is improving.

6B.1.2 Environmental responsiveness in the case study organizations in India extended beyond regulations

Even though the environmental regulations were ineffective because of poor implementation, the environmental responsiveness at all the case study organizations in India extended beyond compliance requirements. Regulations were perceived to set the minimum standard at the best and the case study organizations reported their environmental responsiveness to go beyond the regulatory requirements. The following extract from the interview with the manager at Valiance illustrates this point:

> *When we are doing any work we don't say – "Oh this is a regulatory requirement and so we have to do it". It is always "so what is the rest of the world doing, what the best company is doing, what is the – you know – which one you have found out from the western world where... – what is the current technology?" When we are putting up a plant we say "can we do better than that". You know that kind of things, rather than saying "ok regulations require you to – so you do that". We have gone beyond regulatory requirements.*

> *In fact in India, many times it is only after companies like Valiance bring in some technology, demonstrate something that regulations may get created. So regulation as such, I don't see as being a reason for anything. We are far beyond that.*

As Table 6.16 illustrates, this view is consistently replicated across all the case study organizations in India.

Table 6.16 Environmental responsiveness extending beyond compliance requirements in organizations in India

Organization	Abridged illustrative quotes regarding environmental responsiveness in organizations in India being beyond regulatory requirements
Cosmos (Steel)	What we do is not because it is regulations and we have to fill up some files. You know we have been recognized by the United Nations for our efforts. But we did not start with the idea that United Nations would give us an award. This is where I am coming from. Our benchmarks are international.
ICLL ((Diversified businesses, including pulp and paper, agri-business etc)	The first instruction to everyone in the company would be to be beyond compliance. We go far beyond that. We are aiming to be a zero waste company. We have built the largest green building in India. It has been rated platinum rated by the US Green Business Council under their LEEDS programme- Leadership in Environmental and Energy Design. It is the largest platinum rated building. There is no pressure, regulatory, or otherwise on ICLL to make a green building. It has cost us may be 10-15 percent more than a normal building because green materials are still not available in India, not all of them easily available at competitive prices. Okay, so we went in for that because we wanted to put an example in the country that – look how good buildings can be made and how they would save energy and give wonderful place to work.
Endeavour (FMCG)	So if you see the environmental initiatives, there are a number of them which are not just limited to meeting the environmental parameters or norms set by the government or by the authorities. They go beyond that what we required to do to achieve our responsibility
Cottex (Textile)	For us in most of the case we have been doing better than what regulations lay down. The recycling of water, the state of art rain water recharging unit…We are not supposed to be doing recycling of water by regulation- we have to treat the effluent to a certain extent and discharge out. We have gone one step forward and we are recycling about eighty percent of water.
Raj (Hotel chain)	We go further you know. We believe we should go two steps ahead of government regulations.
Mayer (Electronics)	The implementation of ISO 14001 and even OSS 18000, these virtually compel us to go beyond the level of compliance.
Organochem (Chemical)	For a chemical plant any pollution is a loss. So within our manufacturing area what we are trying to do is 100 percent recycle *(which goes beyond regulations)*.
Sun (Fertilizer)	But issue is this that we are already performing better than what the government put as regulation. We are much better than what government norms are there.
Pharmachem (Pharmaceutical)	There is no legislation in India today that compels us to publish the report like this and make our account public you know in terms of what we are discharging, what we are emitting, how we are progressing on that, but we

Organization	Abridged illustrative quotes regarding environmental responsiveness in organizations in India being beyond regulatory requirements
	make it public and then this is our own initiative. This goes much further beyond the legislative compliance
Tripax (Pharmaceutical)	We follow the international norms for that we go further than local laws and rules in terms of letter and spirit both.
Valiance (Petrochemical)	Valiance tends automatically to be ahead of regulations. In fact in India, many times it is only after companies like Valiance bring in some technology, demonstrate something that regulations may get created. So regulation as such, I don't see as being a reason for anything. We are far beyond that.

6B.1.3 Domestic consumers as drivers for environmental responsiveness in India

The findings further reveal that environmental responsiveness in the Indian case study organizations was not driven by the final consumers. Although only seven (ICLL, Endeavour, Cottex, Raj, Mayer, Sun and Valiance) of the eleven case study organizations made products aimed at the final consumer, none of these seven firms attributed their environmental responsiveness to the domestic consumer. The other four organizations (Cosmos, Organochem, Tripax and Pharmachem) primarily target organizational customers.

The prevailing perception is that the Indian consumer views environmentally friendly products sceptically and they are deemed to be costly and ineffective. In fact the realties of the Indian marketplace had lead Endeavour to decide against highlighting the environmentally beneficial attributes of its new detergent. Endeavour, whose distribution system extends to even the remotest villages (more than 6.3 million retail outlets and more than 250 million rural consumers; according to its own estimate it's distribution system has more coverage than government networks), does extensive and regular consumer research.

> *We are a three billion dollar company in India and you know we have got distribution counters in almost every nook of the country. We impact the lives of people right from the time they get up in the morning and sleep in the night in terms of offering our products which they use. And we also believe that at least about 60-65 percent of their free money, the money which they spend on their daily requirements actually gets spend on Endeavour's products. We have such a large consumer base and we do regular consumer research, therefore we are able to know what consumers really want.*

This finger on the consumer's pulse lead Endeavour to promote its new environment friendly detergent on the basis of convenience offered (*have to carry less water*) rather than promoting it as a phosphate free environment friendly detergent.

> *We will be wiped out if we start doing that kind (environment friendly) of advertising In India. We have seen it from our experience with competitors.*
>
> *If we sell it saying it is environment friendly, the consumer may not want it. In fact they may reject it outright. There are companies like Henko who actually came in wanting to exploit this whole use of non phosphate detergents, they say that our detergent is more eco friendly and things like that, but the fact remains that people still don't….ah ….still see it to be good detergent. Therefore they are not able to sell it. If you are not able to sell of course you cannot remain in the business.*
>
> *So while we are doing it, we will not advertise it in that manner. We won't tell people that this is what we are doing for the environment. That kind of awareness I would say that heightened awareness has not happened in the Indian market as yet. People still would not buy a product because it is more environmentally friendly. So that kind of selectiveness, which happens in Europe today where people will buy and may be even pay more for the eco friendly products, which will cost more, that has not happened in India.*

While the experiences of the other six organizations are not so stark, however they point towards a similar lack of interest from the final consumer. The responses of the case study organizations in India who sell to final consumers are summarized in Table 6.17.

Table 6.17 Consumers as drivers of environmental responsiveness in organizations in India

Organization	Abridged illustrative quotes regarding consumers as drivers of environmental responsiveness
ICLL (Diversified businesses, including pulp and paper, agri- business etc)	You know even if we were not environmentally responsible, we could still sell our hotel rooms, there is still such a shortage in the country, there are a lots of people who sell rooms even without being environmentally as responsible as we are… so it's not as if we face consumer demand… Or take EFC paper. Elemental chlorine free paper that ICLL produces we do not really get a very high premium on that.
Endeavour (FMCG)	We will be wiped out if we start doing that kind (environment friendly) of advertising In India. If we sell it saying it is environment friendly, the consumer may not want it. In fact they may reject it outright. So while we are doing it, we will not advertise it in that manner. We won't tell people that this is what we are doing for the environment. That kind of

Organization	Abridged illustrative quotes regarding consumers as drivers of environmental responsiveness
	awareness I would say that heightened awareness has not happened in the Indian market as yet. People still would not buy a product because it is more environmentally friendly.
Cottex (Textile)	No. There is not a demand from the consumers for the environmentally friendly products. I think consumers in India have got very late (left behind?) in demanding that.
Sun (Fertilizer)	No, no, nothing from the farmer's side.
Mayer (Electronics)	No, not from the consumers as such.
Valiance (Petrochemical)	The refinery was capable of producing what is called as Euro 2, Euro 3 norms fuels even in 1988. Now those fuels, those standards had not come to India at that time in terms. So there was no consumer demand, when we started doing it.

The response by the manager at Raj does not by itself rule out domestic consumers:

> *And we have done research ourselves where the customer have been asked "are you going to chose a hotel which is more eco environmentally concerned and practices these steps?" They are showing yes. They are showing very positive trend. They are concerned towards energy conservation, not using plastics, saving wood.*

However when this response is interpreted in context of a preceding statement in the interview (*We have a large number of foreign guests)* and along with the information available from Raj's website which indicates that Raj largely targets itself to foreign luxury travellers at the top end of the market (including visiting celebrities, dignitaries, etc), it does indicate (although by inference) that it is not the domestic customers that the manager at Raj is referring to.

Summarizing the last three sections, the findings indicate that while environmental responsiveness in the case study organizations in India went beyond regulatory requirements, it was not local regulations or pressure from domestic consumers that propelled the case study organizations to be environmentally responsive.

6B.1.4 So what drives organizations in India to be environmentally responsive at the first order?

In absence of regulatory and consumer pressure what drove organizations in India to be environmentally responsive? An in-depth case analysis revealed that first order responsiveness in the case study organizations was driven by pressures emerging from their international linkages. Thus the majority of the case study organizations at first order responsiveness in India were both trading with multinational organizational customers and also had global ambitions which involved setting up international subsidiaries (in both developed and developing countries). Corporate environmentalism in these organizations was observed to result from the pressures of their multinational organizational customers (who demanded an environmental commitment of at least the first order as a necessary condition for doing trade with their suppliers in India) and the institutional pressures that emerge when firms set up global subsidiaries (especially in developed countries).

However it must be pointed out at this stage that international linkage was not the basis for selecting the case study organizations in this research (being environmentally responsive was the basis). But perhaps as a consequence of the prevailing economic scenario in India a majority of the case study organizations in India reported some kind of international linkages. The international linkages of the organizations in India in this study were not limited to exporting, outsourcing and maintaining licensing agreements with multinationals in developed countries. The case study organizations in this study were also actively aspiring to have global presence through mergers, acquisitions or setting up green-field subsidiaries in countries across the world. These near ubiquitous international linkages of the top Indian organizations perhaps reflect the changing economic policies in India. Under the economic liberalization programme introduced in India after 1991 and because of acceleration in the

pace of globalization, the Indian GDP growth rate has more than doubled. From a mere four percent in 2000 it peaked at 9.4 percent in 2006 (current GDP growth is 8.4 percent) and exports were at a record high of US $ 144 billion in 2007 (The Economist, 2007, February 25; World Bank, 2007). In this era of economic growth most of the bigger Indian firms are keen to exploit the resulting business opportunities in the international arena. One indicator of this is that 23 percent of India's current GDP comes from exports (The Economist, 2007, February 25).

Reflecting this changed economic environment, a majority of the case study organizations in this study thus had strong international linkages. These linkages were however not limited to exporting raw material or intermediary products to developed countries. While there were organizations in this study that were making intermediary products for the multinationals (based in developed countries) or had related arrangements such as outsourcing, or licensing etc, however the case study organizations also included organizations that were Indian multinationals with subsidiaries in developed and developing countries and with ambitions to be major global players.

Thus at the time this research was being conducted, Cosmos had acquired a major international steel company (taking Cosmos to the top five steel manufacturers in the world). Cosmos has manufacturing operations in 15 countries. Tripax has operations in 49 countries and exports to 125 countries. Valiance, a Fortune Global 500 company, is the world's largest polyester yarn and fibre producer. It is also among the world's top five manufacturers of petrochemical products. With subsidiaries in five continents and exports to more than 100 countries, Valiance has uninhibited ambitions to be a global leader. Raj has nearly 80 hotels in 12 countries. Cottex has a licensing arrangement with major international clothing brands

(Nike, Levi, Gap etc) and exports to more than 70 countries. Mayer outsources for electronic giants such as Sony and Philips, has presence in 82 countries and is among the world's top 3 optical storage media manufacturers. Pharmachem has development centres in 100 countries and like Organochem exports more than 80 percent of its output. ICLL, one of the most valuable Indian organizations (in terms of market capitalization) outsources and exports regularly to countries across the world. Since the time this research was conducted, a major restructuring has lead to Sun being merged with its parent company. The parent company has operations in 20 countries. Finally Endeavour's international linkages extend beyond the fact that it exports to both developed and developing countries. Though it has been in India for more than 100 years, Endeavour is a subsidiary of a prominent multinational company whose operations extend to 150 countries.

The case study organizations have thus incidentally but successfully captured the broader scenario in the Indian business environment. The current business environment in India (in 2007 India crossed the trillion dollar economy mark (The Economist, 2007, February 25)) involves growth through competing internationally. This is a dramatic shift from the earlier policies aimed at self sufficiency. Thus while the theoretical sampling focussed on selecting environmentally responsive organizations in India, however the reality of the current economic environment in India dictates that most of the larger organizations (which as discussed in chapter five are also the only ones engaged in environmentally responsive activities) are currently actively exploring international opportunities. Table 6.18 summarizes the international linkages observed in the case study organizations in this research.

Table 6.18 International linkages of case study organizations in India

Organization	Level of responsiveness	International linkages
Cottex	First order	Exports to 70 countries (developing and developed) Has a licensing agreement with major international clothing brands.
Mayer	First order	Outsources for major electronic manufacturers in Europe and Japan. Presence in more than 80 countries.
Organochem	First order	Makes intermediate products for major chemical manufacturers. Exports to Europe and North America.
Tripax	First order	Exports to 125 countries (developing and developed) Has operations in 49 countries. Manufactures for major international pharmaceutical developers through a licensing agreement.
Pharmachem	First order	Exports more than 80 percent of its output. Has development and research centres in 100 countries (developing and developed).
Raj	First order	Has hotels in 12 countries across 5 continents.
Sun	First order	Merged with parent company which has operations in 20 countries.
Valiance	First order	Clearly stated ambitions to be a global leader. Has subsidiaries in 5 continents. Exports to more than 100 countries.
Cosmos	Second order	Operations in 15 countries (developing and developed). Expanding through acquiring major steel companies in developed and developing countries.
ICLL	Second order	Subsidiaries in Australia. Exports and outsources across the world but primarily to Europe and North America.
Endeavour	Second order	Subsidiary of a prominent multinational. Exports to Europe and developing countries in South East Asia .

However while both first and second order case study organizations in India manifested diverse forms of international linkages, the drivers for the organizations in the two categories varied distinctly.

6B.1.4.1 International linkages as a driver for first order responsiveness

Detailed and in-depth discussions with managers of the organizations at the first order revealed first order environmental responsiveness in these organizations was driven by pressures from their international linkages. Thus the need to comply with international environmental requirements of their multinational customers and the necessity to comply with the environmental regulations of the host countries, were cited as the most important drivers.

The managers at these organizations stated that their multinational organizational customers (e.g. Sony, Philips, Nike, Gap, Bayer etc) demand a certain level of environmental responsiveness. In order to be able to exploit these business opportunities, the organizations in India had to be environmentally responsive at least to the first order. This is illustrated in the responses of the managers at Mayer (an electronic equipment manufacturer):

> *Our OEM customers, from Europe and Japan, they want their suppliers like us to follow their environmental laws. That is number one. To satisfy the norms of our customers, we take lead in protection of ecology and our environment. Like Sony Japan and another customer they go for the green partner certificate as well as green purchase.*
>
> *Thus because we are a part of Sony green partner and because they have certified us so whatever product we are producing and the raw material we are using falls in line as a part of their product environmental management system audit*
>
> *Also if you see also Philips and their green partner programme. They are also a big multinational and they are also very much strict with rules and regulations with regard to environment and social accountability. We have to fall in line with our customers. It is a part of our customer requirement.*

This is further elaborated in the following extract from the interview with the manager at Organochem which makes intermediate products for major international chemical companies:

> *Most of our valued international customers who are looking for long term partnership come to the plant sites for detailed auditing before they finalize their long term orders.*
> *Much of this auditing is in the area of environment health and safety.*

He further elaborates:

> *These companies are also under pressure to ensure that the companies with which they are doing business in preference to companies in their own countries; they also meet the environmental requirements. So that is why they insist that when they buy product from a third world country or a developing country, like our company, that we are also doing our bit for safeguarding the environment so that there is a level playing field between their suppliers from third world countries or the developing countries and companies in their country .*

The manager at Tripax (manufacturers by license for foreign pharmaceutical developers and exports to 125 countries) explains that being compliant with international environmental requirements (of organizational customers) is an essential requirement. He also provides an

interesting perspective wherein he elaborates that it would be difficult to invest in similar

levels of environmental investments if Tripax was competing in the Indian market:

> *For example the environmental treatment that we are having, apart from the biological treatments we have nano filtration, ISO filtration, ultra filtration, reverse osmosis, two stage reverse osmosis. Once the water comes out of that, it is totally recycled. It is like drinking water. So all these cost money. It costs money to install these equipments and it costs money to operate these equipments.*

> *Nearly 80 percent of our products are exported. Our main aim is to comply fully as an international player. So whatever cost comes into that we do take that cost on our product cost and because we place our products internationally, we do get prices internationally which can support that additional expenditure on environment and we are quite happy to continue that.*

> *If we try to follow what we are following in terms of environment and also try to be competitive in India, it would be difficult.*

> *We have to manage it in such a way that our money which is spent on it is recovered fully in terms of what we can get out of the product pricing.*

Additionally all the case study organizations also had international subsidiaries in both

developing and developed countries. Their international subsidiaries had to comply with the

strictly enforced environmental regulations of the host countries. Over a period of time this

has resulted in these organizations benchmarking the environmental performance of their

operations in India against the international best practices. This has resulted in environmental

improvements (pertaining to pollution control, prevention, and decreased resource

consumption) in their domestic operations.

This is illustrated in the following response by the environmental manager at Valiance:

> *India today is in a global market and our business is globally driven. We have global ambitions. We like to create our benchmarks at a global stage and today in the global world environment is one of the most important factors.*

> *For a growing organisation, which wishes to not only to have its presence in India but also to have its presence in that world – you want to set up units in other places, demonstrated benchmarks are always good. We have adopted the western benchmarks in our refineries in India much earlier than rest of the country.*

> *So becoming global has been a major factor.*

The response of the manager at Tripax elaborates this point further:

Though it is an Indian company, it is a multinational company. We have manufacturing operations in 7-8 countries including US, UK and Europe and presence is there in more than 100. So it has to follow the international environmental and other regulations

The case study organizations in India that were environmentally responsive at the first order thus had very pragmatic reasons. International organizational customers had a mandatory requirement for environmental measures corresponding to at least the first order responsiveness. Additionally when these organizations set up subsidiaries, especially in developed countries, they were forced to comply with the strictly enforced environmental regulations prevalent in those countries. These environmental improvements then were also manifested in their domestic operations both due to supply chain pressures and because of legitimacy reasons. Thus to be able to avail the global opportunities, the case study organizations in India complied with what were deemed as essential environmental requirements. The responses of the case study organizations pertaining to internationalization as driver of first order responsiveness have been summarized in Table 6.19.

Table 6.19 International linkages as drivers of first order responsiveness

Organization	Abridged illustrative quotes regarding international linkages as drivers of environmental responsiveness
Cottex (Textile)	These customers (Nike, Levi, Gap, etc) are quite conscious. They demand environmental performance and EMS. They audit our plants and in many cases their demands or their expectations are higher than what local norms there are. Definitely they are playing a positive role
Mayer (Electronics)	Our customers (Sony, Philips etc) are all OEM customers. We have been awarded for a green partner certificate from Sony Japan. So as a part of our liability as well as part of their requirement we have to fulfil whatever good practices there are for long term sustainability Like in European countries there is requirement of good packaging material, so earlier we were using Methyl Bromide for the fumigation of the wooden packaging material but now we have switched over to heat treatment of wooden pellets and completely eliminating the use of Methyl Bromide. Methyl Bromide is not good to the health of human beings as well as it is causing ozone depletion
Organochem (Chemical)	Most of our valued customers who are looking for long term partnership they come to our plant for detailed auditing before they finalize their long term orders. Much of this auditing is in the area of environment health and safety.

Organization	Abridged illustrative quotes regarding international linkages as drivers of environmental responsiveness
Tripax (Pharmaceutical)	Nearly 80 percent of our products are exported. Our main aim is to comply fully as an international player and also whatever cost comes into that we do take that cost on our product cost and because we place our products internationally, we do get price internationally which can support that additional expenditure on environment and we are quite happy to continue that. Though it is an Indian company it is a multinational company. We have manufacturing operations in 7-8 countries including US, UK and Europe and presence is there in more than 100. So it has to follow the international environmental and other regulations.
Pharmachem (Pharmaceutical)	60 percent of our turnover comes from export to the US and Europe market. Whenever we export actually….ah….sometimes we have…ah….ah….our ah….customers who come and look at our plant and then they certify – that it is okay- we are doing it as per the requirement. Also we have development centres in more than 100 countries so for most of the things then we follow the international approach
Valiance (Petrochemical)	India today is in a global market and we are a business which is globally driven, which is having global ambitions. We create our benchmarks at a global stage and today in the global world; environment is one of the important factors. Valiance is driven by a desire to be number one. And the desire is to be number one in every parameter of performance measurement. There is a continuous push to benchmark against world standards not with Indian standards and also there is a continuous pressure to see where are we and why are we not in the top 2 –3. We therefore benchmark ourselves against the best practices in the world, and environment management is a very important part of that.

Raj is a hotel chain, differs slightly in the sense that it deals more with the direct consumer as opposed to multinational organizational customers. However the international linkages (both in form of foreign luxury customers in its Indian hotels and its presence in more than 80 countries world wide) are manifested as a driver of first order responsiveness at Raj:

We have a large number of foreign guests.

These are customers who say that please do not change our towels and bed sheets every day, change alternate days because it will help in conservation of water and reduction of usage of any chemicals.

And we have done research ourselves where the customer have been asked "are you going to chose a hotel which is more eco environmentally concerned and practices these steps?" They are showing yes. They are showing very positive trend. They are concerned towards energy conservation, not using plastics, saving wood.

To summarize, a very clear driver emerged for first order responsiveness. The case analysis consistently pointed to the fact that pressure arising out of international linkages drives first order responsiveness in the case study organizations in India.

6B.1.5 Drivers of second order responsiveness in India

6B.1.5.1 Is internationalization a driver for second order responsiveness

The three case study organizations (Endeavour, ICLL and Cosmos), at the second order of environmental responsiveness also had strong international linkages. Thus as discussed in section 6B.1.4 (p.142-145), Cosmos is among the top five steel manufactures of the world, and has manufacturing operations across 15 countries. ICLL outsources, exports and has manufacturing operations in Europe, North America and Australia. Endeavour exports to Europe and developing countries in South East Asia. Endeavour's international linkages also arise out of it being a subsidiary of a prominent multinational which has operations in 150 countries.

However while these three organizations had definite international linkages, their environmental responsiveness exceeded the first order responsiveness demanded by international linkages. The environmental responsiveness at these three organizations thus went beyond the pollution control, pollution prevention, waste reduction and initial attempts at recycling that characterize the organizations at first order responsiveness. As described in chapter 6A (section 6A.2.1.2, p.115) these organizations were actively engaged in new product development and/or sophisticated projects aimed at industrial ecology. However it must be noted that the fact that these organizations were at a higher order of responsiveness

implies that the first order requirements of multinational organizational customers were being

met as a given. As the manager at Endeavour explains, while slight modifications to the

existing EMS had to be made sometimes due to specific export requirements, however the

pressure from multinational organizational customers was no longer a driving factor as they

had gone beyond stage one responsiveness:

> *We are for example also in the business of making shoes and exporting shoes. So if we are exporting shoes to Germany for example, German people will come and would like to see whether our facilities are not only environmentally safe but our people are also environmentally safe. Although we are conducting the whole operation in an environmentally safe manner, they would like to see the results of that. Until they see they will not give the order to us. We are completely geared up for that.*

> *However it is not an additional pressure on us. It is not an additional pressure because it is a part of our job, part of our routine. We have been doing it. Everybody knows that. Maybe once or twice there was some requirement which was additional to what we are doing, for which we had to set up some additional facilities but in every other case we found that we already do it, nothing great in that.*

> *It is not something which will give us sleepless nights. To say oh something which has come now, how will we meet... nothing like that. This is a routine matter for us. I don't remember in my tenure as the last five years or so in this function, I don't remember more than one or two cases where we had to actually modify a little bit. Even then the modification is not so great, just slight tweaking to meet the specific requirements. It is not that great.*

The manager at ICLL further explains that while ICLL exports and they do have to meet the

necessary conditions for being able to export (for example ISO 14000) however the

environmental responsiveness at ICLL (unlike the organizations at first order) is not driven

solely by the pressure to meet internationalization requirements:

> *We do export a lot of things - we export food, we export paper board, we export a lot of printing work we do for some other countries in our packaging and printing business. Our IT business does do work obviously for European and American clients and ... and yeah almost everything we do would be into export.*

> *So we have to see that if we are exporting any clothing let us say or if you are exporting food or if you are exporting printing or whatever. The customers have started demanding now that our units be SA 8000 compliant now. So do we use ISO 14000? What about the varieties of policies on child labour, HIV, AIDS and so on and so forth. If you go to our site you will find that each of them is in line with internationally what any responsible company would do.*

> *However we are not being pressurised by these things. Pressure would be a wrong word for us.*

For example we are very big in paperboards. So we are the only people in the country who at this moment have the environmentally chlorine free technology for bleaching. But there is no export pressure. Because our exporters have not required it nor does the country people require it. But we still do it since this is environmentally very friendly thing to do.

We have built the largest green building in India. It has been rated platinum rated by the US Green Business Council under their LEEDS programme-Leadership in Environmental and Energy Design. It is the largest platinum rated building.

There is no pressure, regulatory or otherwise on ICLL to make a green building. It has cost us may be 10-15 percent more than a normal building because green materials are still not available in India, not all of them easily available at competitive prices. We went in for that because we wanted to put an example in the country that – look how good buildings can be made and how they would save energy and give wonderful place to work.

This view is replicated in the response of the manager at Cosmos who explains that Cosmos strives to meet the best global benchmarks. However when internationalization demand better measures than currently practised, it is an opportunity to transfer that best practise to the rest of the divisions. Cosmos thus strives for continuous improvement. Therefore though it has been ranked as number one steel maker in world (the assessment included environmental parameters) by World Steel Dynamics for two consecutive years, it perceives the currently unmet environmental requirements arising out of internationalization as an opportunity for further improving its environmental benchmarks. Thus while requirements posed by internationalization are not a driving factor at Cosmos, they do provide an opportunity for further improvement:

When we do benchmarking, we try to cull out the best benchmarks. Sometimes the benchmarks that are available to us at present may not be the best. There can thus sometimes be business reasons which enable us to improve further.

So sometimes we go into uncharted territory and we realize that we have to be at that level. Our motivation to be environmentally conscious is internal but the targets, reference points need to be and are external.

So sometime, we also, when we are exporting we realize we may be exporting to a particular country, we have done a benchmark where we saw that we, we are at maybe five and they are at 10. We realize that our first effort is to go to ten. So we invest and do it but then there is someone else who is at fifteen. So we need to be at fifteen. Motivation is internal but then you export to particular customer who says that you have to follow this guideline and you know item number two is not being, you are not adhering to it, we do it. The challenge is how to transfer that practise everywhere else.

Thus while Endeavour, ICLL and Cosmos had to incorporate certain environmental measures as an internationalization requirement, however unlike the organizations at the first order responsiveness, their environmental responsiveness was not dictated solely by their international linkages. As elaborated in section 6A.2.1.2 (p.115), they went beyond the requirements deemed as essential for exporting, outsourcing etc and invested in environmentally beneficial new product development, and projects aimed at industrial ecology. So what was it that drove higher order responsiveness in these three organizations?

6B.1.5.2 Is the effect on bottom line a driver?

The case analysis revealed that although environmental investments definitely had an improved effect on bottom-line, however (and not just in the second order organizations but in all the 11 cases) it was an effect but not the driving cause. Thus for organizations at the first order, environmental responsiveness was a necessity for being able to trade with multinational organizational customers and meet the environmental requirements of the host countries. Any ensuing cost savings were a welcome spin-off.

For the organizations at higher order responsiveness, the cost savings and the resultant improved effect on bottom-line was again viewed as an additional benefit of the environmental investments. However none of the three organizations at the higher order attributed improvements to bottom-line as a motivation for investing in environmental measures. As the following extracts illustrate improvements in bottom line are a very positive offshoot but not a driver. In fact as the manager at Endeavour elaborates the effects of energy saving drive at Endeavour were all but forgotten till a few years later when an audit revealed the savings:

> *We started this energy drive from 96 onwards. Towards the end of 99, an audit revealed that we were actually making savings.*

We were double excited about that as by that time we had started forgetting all about it.

So we were doing earlier for a few units and then we said "no, no" we should do it for all the units, and then we actually had a movement across the company.

Furthermore it "***emerged***" at ICLL that environmental efforts at recycling etc had resulted in cost savings:

*I think one thing has **emerged** very clearly for us is that environment has become very profitable for us as well (laughs). I mean if you save water, if you save energy, if you have forestry for example and energy you can straightaway calculate and it is very beneficial thing to do. In the solid waste we have **found** that actually by recycling everything that you waste, reducing waste and then recycling everything-you actually make money. So it is actually making money.*

But to say that is a driver... well it is more the sustainability platform we have chosen to be at.

On a similar note the manager at Endeavour explains that they "***found***" that environmental investments had resulted in cost savings:

*So in most cases, I will not say in every case but in most of the cases that we applied environmental considerations, we **found** that it made financial sense.*

Finally as the manager at Cosmos elaborates, higher order responsiveness was a commitment to long term sustainability to which cost savings were incidental:

It is not that if we invest ten rupees or ten dollars in waste management then we will get 12 dollar tomorrow. We realize that if we don't invest this ten dollar today, if we don't invest in climate change today, tomorrow we may not be there! That will be completely irresponsible.

Environmental sustainability contributes to our long term bottom-line. There is an obvious mutuality. It is an important effect but it is not the reason. For that (the reason) I will go back to our vision.

It is not that we are doing is for altruistic measure. We are not going to donate hundred thousand dollar to an environment organization. We believe the investment should be done in creating an environmental infrastructure which enables the society to sustain itself on a long term.

6B.1.5.3 So what drives higher order responsiveness at these organizations in India?

The answer to what drives higher environmentalism in the case study organizations lies in resource based explanations and can be traced back to internal resource based competencies

arising out of unique organizational history and culture. All three of these organizations have a long history, dating back to more than 100 years. All three organizations also share a distinctive culture of being socially and environmentally responsive. An interesting aspect about these three organizations is that all three organizations trace their current environmental responsiveness to an organizational history of being social responsive. For them being environmentally responsive has been a natural progression towards doing the responsible thing. The case analysis thus revealed that this organizational commitment *"to do the right thing"* in regards to the environment has its origin in the respective organizational philosophies.

Thus Cosmos, ICLL and Endeavour have all had a long and an abiding association with the Indian economy. They are almost revered in India and are a household name because of the pivotal role they have played in the development of the Indian industry and also because of their contributions to philanthropic endeavours. They also have a long history of being socially responsive. Under changing circumstances, resulting from issues surrounding climate change and global warming, their social responsiveness has over the last few decades extended to being environmentally responsive. This environmental responsiveness is of a higher order than meeting the pragmatic "market requirements of their organizational customers". The following section elaborates the drivers for investing beyond the first order environmentalism. It explains how the unique organizational culture and history of each of these three organizations, propels them to go beyond first order responsiveness.

Cosmos Steel

Cosmos Steel is widely acknowledged as the most environmentally and socially responsive organization in India. Cosmos Steel was established in the first decade of 1900 and is a

wholly owned subsidiary of the Cosmos group. Although the Cosmos group has over a period of more than a century diversified into a number of businesses, the group however originated from Cosmos steel (which still remains the flagship business). In India the organizational name (Cosmos) has become synonymous with honest and socially responsible business practices. Cosmos Steel pioneered social auditing in India in the 1970's (when it was unheard of in India and not very common even in the developed countries). Since its inception in the early 1900 Cosmos Steel has independently developed infrastructure around its factories and built schools to provide free education to the workers children. It has also build charity hospitals and invested in non profit higher education and advanced research centres. Furthermore Cosmos steel has also invested in developing model and planned cities around its factories. The social endeavours at Cosmos Steel have always been guided by the philosophy of its founding father for whom *"wealth was not the end but a means to an end; the increased prosperity of India"*[6]. Cosmos Steel thus occupies a unique place in nation building after independence. The philosophy of the founding father of Cosmos Steel has now extended to environmental responsiveness and is reflected in the current management priorities of the entire Cosmos group. The Cosmos group have recently won international acclaim for developing the most fuel efficient car in the world. While the environmentally responsive activities in the larger Cosmos group do not have a direct bearing on this research, the purpose of stating the last mentioned fact is to indicate the environmental and social philosophy that Cosmos Steel draws from. Cosmos Steel is a founder member of the United Nations Global Compact and has also been hailed by the United Nations as an exemplary organization for its work in environmental and social responsibility. In the interviews with experts (for details see chapter 5) Cosmos Steel consistently ranked as the number one environmentally responsive

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[6] As explained by the environmental manager at Cosmos during the interview conducted on February 6 2007.

organization in India. As the manager at Cosmos steel summarizes *"Cosmos have a different kind of reverence in India"*.

She elaborates the drivers for environmental responsiveness at Cosmos Steel as follows:

> *Our corporate social and environmental responsibility is an important element for not only Cosmos steel but also the Cosmos group at large. Even 100 years ago Mr Cosmos said "build roads, build hospitals". The reason I mention our vision to build roads, build hospitals is so you know that it is from about 100 years back what this man was thinking of developing societies. It has been always the cornerstone of our philosophy.*

> *For us environmental responsibility is a part of social responsibility. We have been commended by the UN for our environmental and development programmes. Our social responsibility extends to environmental responsibility. A commitment to preserve the environment is now integral to the way we do business.*

> *We have completed 100 years and this has not happened because of a focus only on profit making. For the last 100 odd years, social responsibility has played a very important part. An important element of our vision is that when we are looking into the next hundred years, environmental and social, they play an equally important role.*

Cosmos Steel credits its social and environmental responsiveness to the vision of its founding father and the unique organizational culture arising out of a distinctive organizational history:

> *It is all flowing from out founder's vision. Our founder pioneered these things and it is still continuous. It always has been and will always be a part of our story.*

> *The most important thing is that our environmental responsibility comes from our organizational values. Every employee of Cosmos steel we can proudly say, is working in the direction that Mr Cosmos envisioned. He never said, don't be enterprising and don't make profits. It would be foolhardy. If you don't earn money you can't serve anyone. Do that. But don't miss out on social responsibilities.*

> *Environmental responsibility is a part of social responsibility. So we have now invested in all the environmental projects I explained earlier.*

> *These environmental firsts are driven by internal motivation to be better than what we are today. Continuously striving to environmentally responsible, socially responsible, and financially responsible. For Cosmos Steel corporate, social and environmental responsibility are equally if not more important than finance.*

Thus environmental responsiveness at Cosmos Steel which has been lauded by United Nations and World Steel Dynamics (best steel maker for two consecutive years, including

environmental parameters) is thus driven by a unique combination of organizational history and culture:

> *Our motivation comes from our values and our founding father's philosophy. The moment it becomes externally motivated then we will do things which are by selection which are you know, it will be by design not by default. To invest in the environmental projects that we are, it has to be an integral part of the value system*

> *There is a different kind of a reverence for our group for it's leadership, it's founders, it's culture. We are seen as a very different kind of group.*

ICLL

ICLL is one of India's oldest private sector companies with its origins going back to early 1900. It is currently one of India's foremost private sector companies with a market capitalization exceeding US $ 18 billion. It has consistently been ranked amongst the world's most reputable companies by Forbes magazine and among India's most respected companies by Business World magazine. It also ranks among India's top 10 most valuable companies. ICLL also features regularly in the list of Asia's Fab 50. ICLL has a diversified portfolio which amongst others includes, pulp and paper, agri- business, hotels and cigarettes. ICLL' s diversified status results from being able to fully exploit its core competencies of a vast distribution network and effective supply chain management.

Like Cosmos, ICLL is regarded as a pioneer in the emergence of the Indian industry. Although not in the same category of social responsibility as Cosmos, it has however been active in social issues, since its inception.

> *This plant was set up in 1906 and towns have grown up around the factory. So in such cases especially since you are the only big unit and the employer, a lot of expectations do emerge from the society. We are known here as a "Thali" company, which means the farmers, would say that we are a mother company. "Thali" is the word for mother.*

ICLL has set up a unique initiative *e-khet*. This project is aimed at empowering rural Indian farmers and increasing their competitiveness through enabling them to use internet. This transformational strategy is the subject matter of a case study at Harvard Business School.

> *In addition to our environmental responsibility we are known for our social endeavours. For example we have a programme called e-khet. Now that has attracted a lot of attention. We are doing a lot of work at the base of the pyramid with the people in the villages and the rural farmers.*

ICLL is also actively engaged in social forestry programmes which apart from making it a carbon neutral company have had very positive social and environmental spin-offs both for the marginal farmers and economically deprived tribal people in those areas:

> *There is a lot of wasteland in this country which is called tribal private wastelands. What we have done is developed better clones, which give very high yield and very short felling cycles and which can grow in these wastelands. The eucalyptus that ICLL has developed gives more than 100 tonnes of wood for every hectare in a four-year cycle. The felling cycle has also been shortened by development. So the small farmers find this very useful. The model that ICLL has developed is that 20 percent of this is social forestry on tribal wastelands to support the tribals and the balance is private small-scale forestry for marginal farmers.*

ICLL's mission is stated as "creating enduring value for the nation". The manager at ICLL expresses a very similar sentiment to the one expressed by the manager at Cosmos, indicating that environmental sustainability is deeply interwoven with economic and social sustainability:

> *As a corporate if you are operating on such a large scale and you are also operating in so many businesses you have to take a much larger view then just than the finances. It has always been the fundamental wisdom at ICLL. As a company we have always known to be very responsible.*

> *For ICLL making profit is not enough. Although we have always been socially active but when we started towards sustainability platform, we realized that we have to address the triple bottom line. We now consider our ecological, environmental, social and economic affects now.*

Again similar to Cosmos the organizational culture emanating from top management philosophy was very evident at ICLL:

> *Like social responsibility, environment is now a priority in our organization. Our Chairman is one of the most vocal exponents of sustainability and environment. He is the president of CII-*

> *Confederation of Indian Industry and I think he is single handedly going around encouraging the industry to look at sustainability and environmental issues.*

Endeavour

Endeavour is one of the largest fast moving consumer goods company in India. It is a subsidiary of a prominent multinational and has been operating in India since early 1900's. Currently Endeavour is owned 51 percent by the parent multinational and the remaining by 380, 000 individual shareholders and financial institutions in India. Endeavour has a consumer base of more than 600 million and *"touches the life of two out of three Indians"*. Endeavour is widely acclaimed for its projects on both social and environmental responsibility. One of the social projects at Endeavour has created more than 30, 000 women entrepreneurs in 100,000 villages. This project, which has emancipated many uneducated rural women from the vicious circle of grinding poverty and subjugation, is the subject of many business school case studies. The project has won international acclaim and has also been commended by the United Nations. Another major social project at Endeavour involves improving hygiene practices in rural India. Currently this project is spread over 15000 villages in 8 states and touches 70 million rural Indians. As discussed in section 6A.2.1.2 (p. 115), Endeavour has developed environmentally beneficial new products even when there is no consumer or export demand for it. The drivers for this second order responsiveness lie in Endeavour's unique culture (arising out of being the subsidiary of a prominent MNC) and the distinctive path traced by its history in India which dates back to nearly a century:

> *The first driver is that we are a part of a global organisation and we know that the global organisations are most vulnerable, if you are not able to manage…if you are not able to respect the environment. Therefore we feel that in the long run the business will not survive if we don't manage the environment well.*
>
> *Our reputation is at stake.*

The manager further elaborates:

Our parent company's role (in influencing our environmental responsiveness) is very, very high. There is a complete structure that has been put in place. At our parent company's website there is a body called EIEG –Endeavour International Environmental Group. These are the people who actually keep record of the environmental performance of the Endeavour companies across the whole world. They examine region wise and also country wide. An environmental report every two years is being published by them. Their control is very tight.

The manager at Endeavour however clearly distinguishes the environmental responsiveness at Endeavour from other recent multinational entrants in India:

I can give you a number of examples of why we are different - a number of businesses have been affected by that, a number of businesses have gone into…..into…red. These are big names like Coca-Cola, Pepsi and even McDonalds. So these issues become global issues and they can spread like a wildfire.

It can be very detrimental to the way we do the business. It can affect the corporate goodwill and reputation and that cannot be gained.

Our reputation in India, it has been build over years, over decades of work; it cannot be regained within a short time. And that is something, which is most valuable for us.

Like Cosmos and ICLL, the environmental responsiveness at Endeavour originates not only from being a multinational subsidiary but also its history of social responsiveness in India:

We are not here only to do business just for ourselves. Our products have always been used by a lot of people. We have always been conscious of the fact that there are a lot of people and a lot of communities whom we affect. We have been here since early 1900. We have always believed that we must take them (the communities) along with that and we must make sure that their economic and social development is not affected, because of our operations.

For example we have a huge programme on the rural upliftment of women and women empowerment. It is called Project Abhiman. These women not only sell our products they become entrepreneurs in their own right. These are the rural women who are not educated, who are completely uneducated, they have never come up, never stepped out of their places, their husbands, their spouses will not allow them. That is the rural construct of this country you know. That is the women we are trying to empower. Not one, but millions of them who are now, we call them our associates. They actually sell our products. They do the selling and the convincing in the households in that particular village. They are earning money in the process and they get empowered they get their own money in their bank accounts.

Project Abhiman is a part of the corporate social responsibility and is not related to environment as such. But what I am saying is we see social development, economic development that we want to do through our own products and services and environmental up gradation, they go hand in hand with that. We would not like to do one at the cost of the other. We must not only minimize the impact of the environment but we must educate the people around them.

> *Our sustainable development approach encompasses all three things and there should be a balance between all three.*

He further elaborates how environmental responsiveness at Endeavour is intricately woven with its culture of social responsiveness:

> *Similarly we are involved with women's education and children education. In many places we have adopted ... what you call the special children homes. We have seen that we should actually adopt these special children's homes. Our managers actually spend some time with those children so that they understood how the life is lead by those children, how hard is surviving.*
>
> *Our factory manager for example has compulsorily to spend some time in the community there, with the schools or with the hospitals, with environmental bodies or local NGO's. He has to do that.*
>
> *We have an integrated approach to environment. So in a sense we would not like to upgrade the environment at the cost of economic or social development or economic development at the cost of social or environmental. We have to strike a balance between all the three*

Thus for all the three organizations at the second order of environmental responsiveness, the drivers for corporate environmentalism, emanated from organizational history and organizational culture of being socially responsive. Unlike the organizations at the first order whose strategies were directed at capitalizing on the ***opportunities*** presented by globalization, these three organizations exhibited a deeper understanding of the ***broader issues*** surrounding environmental changes. Drawing from their unique organizational competencies (which result from their century long history of social responsiveness) they have now extended their social responsiveness to include environmental responsiveness.

6B.2 Summary of Findings:

In absence of effective regulatory implementation regimes, first order environmental responsiveness in the case study organizations in India is primarily driven by their international linkages. It thus results both from the stakeholder pressures arising form the demands of multinational organizational customers and the institutional pressures that

demands compliance with the environmental regulations of the host countries. The case study organizations in India who were at the second order shared a common heritage of having always been socially responsive. Their environmental responsiveness unlike the organizations at the first order went beyond pure business reasons. For these organizations their higher order responsiveness emanated from their organizational history and culture of being socially responsive which in the current times has also extended to environmental responsiveness. It is the resource based factors that emerge from unique organizational history and culture that explain higher order corporate environmental responsiveness. Table 6.20 summarizes the drivers of first and second order corporate environmentalism in the case study organizations in India.

Table 6.20 Summary of drivers of environmental responsiveness in case study organizations in India

	Organization	Regulations	Domestic consumers	Societal pressure	Pressure from multinational organizational customers/ global aspirations	Environmental responsiveness arising from a distinct organizational history and culture of social responsiveness
First order	Valiance	X	X	X	√	
	Tripax	X	NA	X	√	
	Pharmachem	X	NA	X	√	
	Sun	X	X	X	√	
	Organochem	X	NA	X	√	
	Mayer	X	X	X	√	
	Raj	X	X	X	√	
	Cottex	X	X	X	√	
Second order	Endeavour	X	X	X	√	√
	ICLL	X	X	X	√	√
	Cosmos	X	NA	X	√	√

The next chapter discusses the drivers of corporate environmentalism in New Zealand.

CHAPTER 6C

DRIVERS OF CORPORATE ENVIRONMENTAL RESPONSIVENESS

IN NEW ZEALAND

Summary

This chapter details the findings regarding the drivers of first and second order corporate environmental responsiveness in the context of case study organizations in New Zealand. In doing so it integrates the findings pertaining to categorization of corporate environmentalism (into first and second order responsiveness) in chapter 6A with the research questions specified in chapter four.

6C.1 Drivers of Corporate Environmentalism in New Zealand

6C.1.1 Regulations as a driver for first order responsiveness in New Zealand

In contrast to the findings in India, environmental regulations emerged as the single most important driver for first order responsiveness in all the case study organizations in New Zealand. While there were additional factors at play for the three organizations (Solitaire, Sunrise and Phoenix) which went beyond first order responsiveness, regulations were however clearly and unanimously reported as the most important driver for first order responsiveness. The manager at Skyes provides a very illustrative quote that reflects the essence of the responses of the other 11 case study organizations in New Zealand:

> *From the point of view of managing (environmental issues) we are required to do it by law.*
> *Law requires us, even if we had no concerns about the environmental effects.*
> *So we are required to deal with these by law and we have to comply.*

Unlike in India, compliance with environmental regulations is not negotiable in New Zealand as is indicated by the response from the manager at Keratin:

> *Unless we meet the discharge limits of the consents we close down.*

The manager at Solitaire describes how standards set by environmental regulations dictate their business and become *"operating constraints"*:

> *Well, it would be naïve, I suppose for me to say it's all purely altruistic. There are legal implications if we don't.*
>
> *On day to day basis on mine sites, majority of what we are required to comply with is set in the consent attached to the licenses. In some cases there are national standards or district or regional plan standards. In those cases they are regarded as our absolute limits. They are our operating constraints.*

The response of the manager at Sunrise further elaborates the strictness of the enforcement regime in New Zealand:

> *They (the environmental regulations) are very important here because you have got huge problems for breaching, including fines and ultimate extreme- imprisonment.*

This is further supported by the manager at Amity, where a prosecution resulted in stricter monitoring and control of environmental issues:

> *Five years ago now, at a time when the organisation did not specifically have someone managing the environmental issues we had an uncontrolled release to the environment. Some of the discharges got into the storm water system.*
>
> *That prosecution certainly was a big motivator.*

Compliance with environmental constraints imposed by the resource consent requirements, were seen as a must do category in New Zealand. Accordingly, the rate of return criteria which is normally used for most capital expenditures is often dispensed with for environmental expenditures. This is illustrated in the following quote from the manager at Sunrise:

> *For instance we have an internal rate of return hurdle for most capital expenditures but when that expenditure is on an environment project, you cannot ignore the consent requirements. It is just in the must do category and you cannot show an economic return to it.*

In a stark contrast to India, organizations in New Zealand are required to continually monitor their own discharges and supply the data through the consent processes to the council:

There is a lot of recording continuously going on and so it shows any glitch that you have and the way the consents are worded now any spike in the results is likely to be a breach of the consents so you then have to start building up a track record of potential breaches if things that are going poorly and in today's environment very quickly leads to prosecutions.

We are doing the ongoing monitoring and supply that through the consent process to the council. So some ways it's usually your own data that ends up causing you the problems because we have to provide all those records by regulations to the council.

(Sunrise)

However it appears that even in New Zealand there is a discrepancy in the environmental monitoring regime in the sense that the bigger organizations appear to attract larger share of the attention of enforcement authorities: This is illustrated in the following extract from the interview with the manager at Solitaire:

It would be fair to say that we have had concerns in the past where regional councils have not applied what we have thought of as a level playing field, compliance monitoring for instance. They will come and see us on a weekly basis and the one down on the road with a smaller operation maybe once a year and so for 364 days of the year he will be flouting up the compliance and they won't say a word. We don't have the same …

That absolutely is the case on some of our west coast operations.

However because this study focuses on corporate environmentalism in larger organizations (and not on the small and medium sector industries), all the organizations in New Zealand reported regulations as the single most important driver for first order corporate environmentalism. Table 6.21 summarizes the responses of all the case study organizations in New Zealand pertaining to regulations as the drivers for first order responsiveness.

Table 6.21 Regulations as drivers for first order corporate environmentalism in the case study organizations in New Zealand

Organization	Abridged illustrative quotes regarding environmental regulations as a driver for first order corporate environmentalism in New Zealand
Fabio (Food distribution)	The biggest driver would be regulation. Environmental regulations influence us hugely. That would be the biggest thing. We are governed by RMA and local government act and it isn't as if you can get away. We are continuously monitored.

Organization	Abridged illustrative quotes regarding environmental regulations as a driver for first order corporate environmentalism in New Zealand
Keratin (Wool Scouring)	The driver is meeting the discharge consents consistently. Unless we meet the discharge limits of the consents we close down. Regulations are the biggest driver. Well unless you meet the improved limits for discharge then you are in breach of your contract. It's all under the regulations of the RMA, so we got to comply with that. For us the only guidelines are meeting our discharge consents.
Shield (Petrochemical)	The motivation is compliance with all applicable statutory environmental regulations requirements in New Zealand.
Atlas (Dairy)	To operate within New Zealand you need to meet certain environmental standards set by the regional councils. The commitment to meet the regulatory criteria is an important driver. Our environmental policy commits us to achieve full consent compliance.
Amity (Food industry)	Regulations govern (our) environmental performance. We monitor and manage those (environmental) impacts. A baseline for our environmental management is to meet all of the regulations and permits and requirements for our factories in the areas that we operate. In my role as an environment manager I have to manage our obligations to the different councils we interact with.
Marion (Electricity distribution)	By legislation I mean the RMA and we have got the Hazardous Substances (and the New Organisms) Act coming along. So there are these legislative drivers.
Skyes (Construction)	From the point of view of managing (environmental issues) we are required to do it by law. Law requires us, even if we had no concerns about the environmental effects. We are required to deal with these by law and we have to comply.
Waite (Electronic and defence equipment manufacture)	The NZ regulations influence our environmental activities in terms of our activities here in NZ. So regulations, regarding waste disposal and that sort of thing and like any regulation you know….non- compliance is not an option.
Hercules (Retail chain)	We have obviously you know got local council bylaws and so forth to do with the way we manage our wastes.
Solitaire (Mining)	Well, It would be naïve, I suppose for me to say it's all purely altruistic. There are legal implications if we don't. So that certainly is one of the drivers in improving our corporate environmental performance and why we put these measures in place.
Sunrise (Fertilizer)	Well you've got a regulatory constraint, which obviously makes sure you have got the resource consents for those sites. They (the environmental regulations) are very important here because you have got huge problems for breaching, including fines and ultimate extreme- imprisonment.
Phoenix Energy (Electricity generation and distribution)	Phoenix Energy's Environmental Management System (EMS) has been developed to comply with all environmental legislation.

6C.1.2 The role of community pressure in influencing first order corporate environmentalism in New Zealand

Just as regulations had a pivotal role to play in influencing organizations in New Zealand, so also the need to meet community expectations emerged as a very important driver for first order corporate environmentalism. The case analysis reveals that in accordance with the prevailing social paradigm in New Zealand, the community expects and demands that business organizations be environmentally responsive at least to the minimal requirements of the first order (i.e. treating the "visible" discharges to air, land and waterways). Accordingly the majority of the case study organizations listed meeting the community expectations in this regard as an important driver for first order responsiveness. The manager at Sunrise elaborates:

> *Because if you don't (prevent and control the discharges), your adverse effects would become so black, so obvious you couldn't operate.*

> *It is very visible and it's not just a shallow visibility about which no one will notice- you would notice if you get it wrong- you kill trees and upset people.*

> *For instance if fluoride emissions, if they are high they can etch your glass so people nearby have their glass affected by the emission, it's very quickly going to be unacceptable. Then you have got biological indicators such as when trees or uptaking plants and certain plants are very very sensitive. The plants for instance might be affected quite rapidly by adverse emission and therefore you have got a very visible thing.*

Community expectations regarding first order responsiveness in New Zealand in-fact go hand in hand with regulatory drivers, as explained by the manager at Sunrise:

> *I think you can deal with these two issues together. You can argue that in many cases it is the community pushing back for tighter regulations*

As the manager at Fabio further explains:

> *I wouldn't say that any of those are above each other. They are both interdependent on each other.*

Thus it appears that the case study organizations in New Zealand are driven to be environmentally responsive at the first order due to a mutually reinforcing pressure from community and regulatory drivers. Table 6.22 details the responses of the case study organizations in New Zealand who reported community pressure to be environmentally responsive as an important driver for initiatives aimed at pollution control and prevention. The results detailed in this section however must be interpreted in conjunction with the regulatory drivers explained in section 6C.1.1 (p. 164)

Table 6.22 Community pressure as a driver for first order responsiveness in New Zealand

Organization	Abridged illustrative quotes regarding community pressure as a driver for first order corporate environmentalism in New Zealand
Fabio (Food distribution)	It (the environmental expectations) is a part of the changing societal culture that we are in. It's the social paradigms of what's out there in New Zealand and what New Zealander's want. So we try and be aware of what communities demand.
Keratin (Wool Scouring)	We have got a social conscious, we don't want to pollute the river or choke all the people in Belfast. Yeah, Yeah definitely, the society is certainly demanding a cleaner environment.
Atlas (Dairy)	We are often one of the largest employers in those communities and it is very important that we are working with the communities there and seen as something positive to happen in the community rather than something the people would not have there. So wanting to establish a good relationships with the communities within which we operate, is also an important driver.
Marion (Electricity distribution)	Most people can't see the fine, you get from the prosecution but if you have your company associated with T.V cameras and dying ducks and oil in waterways – Oh! That's a big no no. That actually can damage your company's image in the community.
Skyes (Construction)	Environmental expectations of the neighbours in our sites and neighbouring communities are very important. Especially regarding issues such as noise and dust
Waite (Electronic and defence equipment manufacture)	I mean it's not as if we emit a lot of noxious fumes or anything like that. We are not seen as a particularly dirty industry. But the other thing is because we have got an environmental programme, we have certainly been quite happy to let the public know that we have that.
Solitaire	We need to demonstrate to the society that we can undertake the work in such

Organization	Abridged illustrative quotes regarding community pressure as a driver for first order corporate environmentalism in New Zealand
(Mining)	away that it confirms our ability to do the job properly.
Sunrise (Fertilizer)	Fluoride emissions, if they are high they can etch your glass so people nearby have their glass affected by the emission, it's very quickly becomes unacceptable.
Phoenix Energy (Electricity generation and distribution)	We foster close relationships with the community and stakeholders, so that their views can be incorporated into the company's environmental decision-making processes.

6C.1.3 Drivers for second order responsiveness in New Zealand

As discussed in sections 6C.1.1 (p. 164) and 6C.1.2 (p.168) regulations and community pressure play a pivotal role in dictating first order environmental responsiveness in all the New Zealand case study organizations. This section focuses on the drivers that lead the three organizations (Solitaire, Sunrise and Phoenix) to go beyond first order responsiveness. All three of these firms have invested in environmentally beneficial new product development and two of these firms have attempted projects aimed at industrial ecology. So what are the factors that propel these three firms to go beyond the first order?

All the three organizations that went beyond first order responsiveness belong to very different industries (Solitaire is into mining and exporting coal; Sunrise is a fertilizer manufacturer and Phoenix is an electricity generator and distributor). A detailed within and cross case analysis of these three organizations however reveals that despite these apparent differences in their business, all three share interesting commonalties. They are similar in the sense that all three have been singled out as being extremely polluting and environmentally damaging. Furthermore all three face continual pressure by environmental and community groups. The direct action campaigns against all these three organizations do not merely seek a change in their environmental practices, but a ceasing of their business operations. They are

regarded by the environmental groups, the media and the communities where they operate as business equivalents of "dinosaurs"[7] who have no place in a society and a regime committed to carbon reduction. Thus the societal and the community pressure directed at these three organizations is not on the same magnitude or scale as faced by the other case study organizations. For the case study organizations at first order responsiveness it is a general expectation of the civil society that there be an absence of visible pollution and that the environmental discharges be appropriately treated. These three organizations however because they are in environmentally more demanding businesses have faced picketing and direct action from protest groups. The much publicized environmental protest actions against their operations have led to considerable business losses for all three organizations. As an example, Solitaire's ongoing security costs against protesters were costing it over $ NZ 1 million annually. This figure does not include the cost of shipments that had to be cancelled as a result of environmental NGO protest activities. Similarly Phoenix has been called a "climate killer". Protest groups campaigning against Phoenix were calling for closing its main coal fired power generation plant by 2025 and for not allowing Phoenix to build any new coal fired plant. Residents around Sunrise's factories are continually protesting against granting it further resource consents due to fluoride and acid deposits generated as a result of Sunrise's operations. They claim it has detrimental effect on both their health and their homes. Sunrise is also under increasing pressure because of its association with nitrogenous leaching.

All the three organizations thus are amongst the environmentally most maligned organizations in New Zealand. They therefore have a shared reputation for being an environmental liability in a clean and green country. The managers in these organizations explained that they have to

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[7] For this section of the thesis, documentary evidence from sources such as newspaper reports, community and environmental group newsletters, and court judgements, has been used to support the contentions being made. The documentation is available with the author. However these sources have not been explicitly listed as references as doing so would compromise the promise of anonymity made to the respondents.

work harder than organizations in other industries to *earn and maintain their license to operate*. Consequently as elaborated below, each of the three case study organizations in New Zealand that went beyond first order responsiveness did so in an effort to be able to *continue their license to operate* in face of tremendous negative environmental publicity.

Solitaire

Solitaire is a coal mining company in New Zealand. In the currently prevalent social paradigms in New Zealand where environmental concerns have gained a heightened importance, Solitaire stands doubly "disadvantaged". This is so because firstly, mining has traditionally been viewed as extremely damaging for the environment. This is especially true for the open cast type of mining activity practiced by Solitaire which has long been considered one of the most destructive forms of mining. Secondly Solitaire mines and exports, not merely ordinary metals and minerals but coal. Coal produces more toxic pollution than any other source of energy and is a major contributor to global warming. In the current global scenario where climate change has become a major social and economic issue, a business engaged in mining and exporting of coal faces serious implications, not the least of which is negative public opinion regarding its core business activities. It has not helped Solitaire that its environmental credentials as regards protecting the fauna and flora at its mining sites have been the subject of severe criticism.

To add to Solitaire's woes the environmental protests against it have intensified since 2004. In 2004 it applied for and was granted resource consent for mining activity in an area regarded as ecologically very fragile by environmentalists. Maori and environmental groups appealed against the decision to grant mining consents to Solitaire in the Environmental Court. They however lost the appeal. The environmental groups then started a non violent direct action and

education campaign to halt the proposed mining activities. The environmental groups have since then been actively involved in campaigning against Solitaire's activities. In highly publicized incidents they have climbed atop Solitaire's headquarters and chained themselves to the building with bicycle locks around their necks. They have also maintained a long running occupation and vigil at the proposed mining sites. The protest groups have consistently organized public meetings and letter writing campaigns to further raise awareness about the environmental lapses committed by Solitaire. The fact that the protesters are mostly young university students who are viewed by the public and the media as torch bearers of environmental ideology has dealt a further blow to Solitaire.

To complicate the matters further, a recent attempt by Solitaire to infiltrate the ranks of the protesters by planting spies in their ranks was criticized very harshly by the media and the public. It also resulted in public reprimand from the government.

Given the scale of protest actions against Solitaire by the community and environmental groups, one of the major roles of the national environmental manager at Solitaire in fact is continuous dialogue with community and protest action groups. As he explains they have faced success in some situations while with some other groups they face continuing deadlocks:

> *There are committee groups such as the Milton Plateau Society. It was formed five years ago and is a cooperative society, looking after the interests of Nelson community, the north west port adjacent to one of our open cast mines. They initially said there shall be no mining and put up road blocks and then they said well, this is not a way of achieving what they wanted and then sat on the table with us and culmination of that was us setting asides large amount of land as a reserve which protects the community and working with DOC (Department of Conservation) and the community to set up an historical archaeological industrial park, in that area and assisting in funding things like that. So where they changed from being antagonistic to cooperative groups, we have achieved a very good outcome, communication much enhanced.*

> *Similarly the "Waikato River Watch Group" which is another, group of residents who are concerned about the water quality in the rivers – their initial stance was to be holding up*

placards and turn the photograph to newspapers; they now meet with us on a regular basis and we have agreed on mutual set of standards that we are trying to achieve and a timetable to do so. These groups were invited to participate in the quality monitoring works that we do, so it actually pays to do what we are doing in terms of total transparency.

The counter view is displayed by the issue we currently have with "Forest and Bird". Forest and Bird have chosen to take if you like an adversarial role in the applications we specifically pursued to obtain a consent for an open cast mine, Cyprus mine on West Coast. They have not entered into any meaningful discussions or negotiations on matters of concern to them. Instead it simply said that what we propose doing is unacceptable. The Forest and Bird people did not enter the negotiation so there has been no opportunity to improve or alter a standard.

So where we have been able to enter the negotiation situation, I think we have had quite a bit of success in changing the perceptions of our performance standards. Where we have not been able to enter into negotiations with NGO's or other organisations, then that option has just not existed. I still believe that this company is prepared to talk, provided the other agencies are prepared to come and talk to us. There are a number of instances where we have talked and come out with suitable and satisfactory outcomes.

In others well…they are just not prepared to negotiate.

The protest actions of the many *groups who are not prepared to negotiate* have caused

Solitaire to cancel five shipments in 2007 and have lead to production losses exceeding 10

percent. Overall the ongoing security costs against the protestors costs Solitaire more than NZ

$ 1 million annually. As recently as January 2008, the protestors scaled Prime Minister Helen

Clark's electorate office and attached banners with slogans attacking Solitaire's operations.

The protestors are also planning a march from Auckland's sky tower to Solitaire's mines in

the South Island to highlight the climate changing impact of Solitaire's business.

Thus given the enormity and the continuity of the protest actions and the ensuing public

backlash, it is perhaps not surprising that Solitaire cannot stop at level one of environmental

responsiveness. In trying to defend the *raison d etre* for its existence (coal mining) Solitaire is

being forced to exhibit that mining does not necessarily have to be environmentally

destructive. In doing so it has of necessity to exceed the first order responsiveness.

Solitaire is addressing this through a two pronged strategy. The first strategy (as illustrated in the quotes above) aims at negotiating with protestor groups and giving in to some of their demands regarding its mining practices. This of course involves going beyond the minimum regulatory requirements but it also ensures that Solitaire can earn its **license to operate** from the society: As the manager at Solitaire explains:

> *We have moved from an era where there was if you like "a god given right to mine; go and do this" to an era where we have to **earn that right***

> *We need to demonstrate to the society that we can undertake the work in such away that it confirms our ability to do the job properly.*

> *We have no choice but to address the **"right to mine issue"**, the community's expectations have gone from here to here (higher) and for us to meet those community expectations so that right to mine is earned, we have to set standards higher than those which are legally imposed.*

As regards addressing the concerns regarding being in the business of selling coal, Solitaire has tried to address this concern by investing in new product development which are environmentally more benign (biodiesel and very low emissions wood pellets made from waste pine). As the manager at Solitaire explains:

> *There is no doubt that performance in this area is critical for the success of the company in the future. If we do not get this right we won't get to continue in the future. In these times it is a very significant question so we are still hanging up our overall environmental plan. We are investing in new technologies, the wood pellets and the biodiesel that I mentioned.*

Solitaire has thus been driven to be environmentally responsive at a higher order because of the societal protests against the inherent dirty nature of its business. To be able to continue to operate, it needs to manifest a higher order environmental responsiveness to its detractors. Hence the investments in improved mining practices and in environmentally beneficial new product development:

Phoenix Energy

Phoenix energy is an electricity generator and a retailer. It owns and operates one of the largest (1000 MW) coal fired power station in New Zealand. Consequently Phoenix has been the target of direct action protests by Greenpeace. In a hard hitting campaign Greenpeace has publicly claimed that Phoenix's power stations are New Zealand's biggest source of carbon dioxide emissions. Greenpeace has also dubbed Phoenix Energy as a *"climate killer"*. In 2007 Greenpeace activists climbed a 150 metre chimney at the coal fired power station owned by Phoenix Energy and unfurled a 45 metre banner stating "climate change starts here" with an arrow pointing to the station. The protestors ensured that the banner could be viewed across the town. As a result of such direct action campaigns against Phoenix Energy, it has earned a dubious reputation as one of the biggest climate polluters in New Zealand.

Because of such highly publicized campaigns against Phoenix energy, it is facing difficulties getting consents for its new coal fired plants which are being opposed by both the communities and the local councils. Its recent proposal to construct a new power plant in a small town in the North Island caused much local furore. The local community members wanted wind farms and water generators rather than plants powered through burning fossil fuels. The local councillors were also sceptical about Phoenix Energy's claims that it would generate no more than 1.74 million tonnes of carbon dioxide and were also apprehensive that the effects would be more than local in nature. Phoenix Energy had not anticipated such stringent opposition to their new (and existing) plants. As the spokesperson at Phoenix Energy describes in a newspaper report *"we didn't expect that approach and weren't aware they (the council) were thinking of going in that direction"*.

In a further blow to Phoenix Energy's **license to operate**, Greenpeace, in its report on energy revolution in New Zealand has called for Phoenix's electricity generating power station to be closed latest by 2025 and for no new coal fired power stations to be built in New Zealand. Given this threat to its **license to operate,** it once again does not come as a surprise that Phoenix Energy has invested in environmentally beneficial renewable energy or in efforts aimed at industrial ecology.

Thus like Solitaire, Phoenix Energy has been forced by environmental and community groups to recognize the threat they pose to its **license to operate** if it continues to rely on coal powered electricity generation stations. This pressure, through direct action and community resistance has been instrumental in making Phoenix Energy realize that it is not business as usual to continue with carbon intensive electricity generation. As the manager at Phoenix Energy elaborates:

> *Climate change is the major strategic challenge facing us. As the largest thermal generator of electricity in the country, we need to be able to address the effects our operations have on the environment.*
>
> *We are working at fostering close relationships with the community and NGO's, so that their views can be incorporated into the company's environmental decision-making processes.*

She further elaborates that:

> *We are very aware of the effects of burning coal yet of course we need to continue our business.*
>
> *We plan to reduce our carbon intensity by 30 percent below 2005 levels by 2015. We are also investing in renewable energy projects which should generate 300 MW by 2015. There are also projects examining commercializing tidal energy and initiatives for carbon capturing and sequestration.*

In an effort which perhaps can be equated with the rhetoric employed by the environmental groups (who have dubbed Phoenix Energy as a *climate killer*) the manager at Phoenix Energy elaborates that:

Our Chief Executive has been named the company's climate change champion.

Sunrise

Although Sunrise's operations are not as carbon intensive as those of Solitaire and Phoenix, however Sunrise is also on the receiving end of environmental campaigns. In Sunrise's case the campaigns are spearheaded more by the local communities around its plants than by environmental groups. The communities complain that the fluoride and acid emissions from Sunrise's plants cause respiratory problems and also damage their properties.

The environmental groups though active against Sunrise have not taken their opposition to the levels that they have manifested against Phoenix and Solitaire. Their protests are largely confined to the politics surrounding Sunrise's import of phosphate rocks from Western Sahara which has been illegally occupied by Morocco since 1975. The United Nations treats Western Sahara as a disputed issue and New Zealand is only the second country that has been found to have illegally imported phosphates from Western Sahara. The Environmental groups' activities against Sunrise have been limited to protesting against this import of phosphates from a forcefully occupied region.

However for Sunrise another unwelcome consequence of manufacturing nitrogenous fertilizer from phosphate rocks is that because the quality of the incoming rocks is variable, Sunrise can never be totally confident of the precise percentage of various pollutants in its discharges. The manager at Sunrise explains that:

> *What tends to catch us out is the consents are very tightly worded and the rocks in the inputs we use can vary and so much. We try and keep the process stable but our inputs will not always be of identical specifications so when you start getting into a problem with a rock... 95 percent of the times we may be below a set figure, yeah, but when you get an issue, sometimes it can reach very quickly into something that breaches the consents.*

According to information available from Sunrise's annual report in 2007 alone it was fined

nearly NZ $40,000 for discharges exceeding its consents. Furthermore since 2003 Sunrise has

been found guilty of four offences for environmentally unsafe discharges and has received six

infringement notices and two abatement notices. In one of the most recent prosecutions

delivered by Environment Court, the judge labelled Sunrise as a repeat offender and

emphasised Sunrise' poor record of similar offending.

Sunrise's higher order responsiveness involving its industrial ecology project was aimed at

reducing this reliance on imported phosphate rocks. Through the project Sunrise aimed at

alleviating both the concerns of the environmental groups and also overcoming the vagaries

associated with phosphate rock as an input. Sunrise had thus hoped that the project would

assist it in securing the continuity of its *license to operate*. As the manager at Sunrise

elaborates:

> *As a strategic issue we actually worked very hard on the project on waste products and using them as fertilizers. Because in the end, we want to avoid bringing nutrients from the other side of the world. All said and done the country from where that rock was sourced from is now having to dump huge stock piles of waste product. We wanted to better utilize nutrients that are already in New Zealand. We saw that as very very responsible.*

The second issue that Sunrise faces is community protests regarding the fluoride and acid

emissions that result from Sunrise's operations. Sunrise is not unaware of the problem but as

the manager says:

> *We certainly have the minimize adverse effects policy but the problem what we are dealing with is that the laws of physics dictate "that you cannot create nor destroy" so you have an element, say called fluoride in this case, it's got to go somewhere…,*

But when that *somewhere* started to regularly become the homes of the neighbouring

communities, the communities started to protest vociferously against the renewal of consents

for continuation of Sunrise's operations. This is particularly evident in a recent case wherein

Sunrise requested twenty year consent, but the local communities submitted that the consent

should be no longer than five years. The manager at Sunrise recognizes that the co operation of the community is critical for the continual of Sunrise's *license to operate*:

> *For instance if fluoride emissions, if they are high they can etch your glass so people nearby have their glass affected by the emission, it's very quickly going to be unacceptable.*

> *Negative publicity hurts us, more so because that affects our long term plans of operating in that neighbourhood and continue to get consents for the next 30 – 40 years.*

Adding to Sunrise's environmental woes is the enormous public outrage around issues surrounding leaching of nitrogenous fertilizers. Because Sunrise supplies more than half of the fertilizer used in New Zealand, it therefore finds itself embroiled in the nitrate leaching controversy. Leaching contaminates land and waterways. As the manager at Sunrise explains:

> *Apart from these issues at the manufacturing end, we then have got a whole environmental agenda that relates to on farm use of fertilizers. The nitrate leaching and it's seems to be in far too much publicity these days.*

This issue receives excessive attention because of the fact that New Zealand's economy depends largely on agrarian exports. These exports in turn piggy backs on the clean green New Zealand image, which forms the basis for marketing New Zealand' agriculture produce internationally (Ministry for the Environment, 2001). Nitrate leaching is thus one of the most serious challenges that New Zealand farmers and Sunrise face. In calmer times Sunrise tried to address this issue through relatively simple techniques such as nutrient budgeting (advising farmers to avoid excessive use of fertilizers). But in these hyper charged times fertilizer companies and farmers are being singled out by the community members for death of lakes and contamination of waterways.

Therefore as a direct consequence of its core business activity, Sunrise is now faced with the issue of being portrayed as one of the major contributors in nitrate leaching. This along with its other environmental misdemeanours has caused Sunrise to invest $ NZ 4 million in new product development aimed at addressing leaching.

To summarize this section, the findings that emerge from within and cross case analysis reveal that second order responsiveness in the case study organizations in New Zealand was driven by a need to protect and maintain their *license to operate*. All three organizations, because of the nature of their operations were pollution intensive and were deemed to be "environmentally more dirty" than other average organizations. Their operations thus faced community resistance and direct action campaigns by environmental groups. Unlike the community and environmental NGO pressure faced by organizations at first order, this pressure was not merely about cleaning up their act; it instead was directed at ceasing the continuity of their operations. These three organisations thus faced a fundamental threat to their existence. Therefore in attempting to alleviate the concerns of their detractors and to protect their *licenses to operate* these three organizations responded through adopting higher order environmental responsiveness as compared to the organizations at first order responsiveness.

6C.1.4 What about the role of domestic consumers in driving corporate environmentalism (first/ second order) in New Zealand?

Of the 12 case study organizations in New Zealand six were involved with selling their product to the final consumers. Of these six organizations four have been categorized as first order (Amity, Skyes, Hercules and Shield) and two (Sunrise and Phoenix) have been categorized at second order responsiveness. However (and reminiscent of the findings in India) none of these six organizations credited any aspect of their environmental responsiveness to the final consumer. The manager at Amity, (a food manufacturer) explains that consumers (at least currently) are more motivated by price than by the environmental attributes of products:

> *The motivation for purchasing a product in the supermarket shelf is based on price. If you have a label on your can that says it was produced environmentally sustainably, and your*

competitor doesn't but your competitor is significantly cheaper to your price, that is a higher motivator for the end consumer.

Attempting to explain the dissonance between the much hyped "*consumer driven environmentalism*" and the reality as the manufacturers see it, the manager at Hercules explains that:

> *Consumers say one thing, but do another*
> *There is a gap; there is a dissonance between what consumers say and what they do.*

The manager at Sunrise (which faced enormous difficulties in getting their human waste based fertilizer accepted by the final consumers), is blunter:

> *The consumers are hypocrites. It is hugely hypocritical, it is stunningly hypocritical because they are not thinking of total lifecycles, they are thinking somehow of warm fluffy clean and green but not actually recognising that there's six billion people in the world who have kind of an interface with the environment and closing of the loop makes sense.*

> *This is the irony- by the final market place. So the final market place likes clean and green, but not if it is a human based or so it becomes quite a selfish market place in some ways. They don't want to what you may call close the loop and it all puts so many barriers to closing the loop that a business like ours does wonder what it is worth doing this?*

Finally although Skyes does not currently face any pressure from the final consumers however the manager at Skyes rationalizes that it may happen in future:

> *We do not face any demand from the end consumer. I think that the end consumer is likely to have an increased awareness of the environment if it goes on. They are….. you know five- ten or more years away, before there is broad, exact understanding.*

The above discussion thus indicates that the final consumers were not regarded by the case study organizations as an important driver for corporate environmentalism.

6C.1.5 Do organizational customers in New Zealand (or other developed countries) have a role in driving (first/second) corporate environmentalism in New Zealand?

Of the 12 New Zealand case study organizations in this study, eight did business with organizational customers. As discussed in the above section (6C.1.4) two of these

organizations (Skyes and Amity) also sold their products to the final consumer. Six of these eight organizations exported to organizational customers in both developed and developing countries (see Table 6.23) while two (Phoenix and Marion) did business only with organizational customers in New Zealand. Solitaire and Phoenix are at second order responsiveness while the other six are at first order responsiveness.

Table 6.23 Case study organizations in New Zealand who have organizational customers

Level of responsiveness	Organization	Organizational customers	Exports	
			Developing	Developed
First order	Waite	√	√	√
	Atlas	√	√	√
	Skyes	√	√	√
	Amity	√	√	√
	Keratin	√	√	√
	Marion	√		
Second order	Phoenix	√		
	Solitaire	√	√	√

Discussions with the managers of these organizations reveal that organizational customers in New Zealand pose no additional environmental demands. However for having to do business with multinational organizational customers in other developed countries, organizations in New Zealand sometimes have to meet additional environmental criteria. These organizations thus (sometimes) had to go beyond regulatory requirements of New Zealand so as to meet the demand of their multinational organizational customers in other developed countries. However these demands of their multinational organizational customers remain essentially confined to requirements pertaining to first order responsiveness. Thus as the manager at Waite, an electronic and defence equipment manufacturer explains:

> *I guess one of the drivers we have at present is the legislation in some of our markets particularly in Europe.*

> *And one of the major impacts that had on us as an organisation has been two pieces of legislation that have come out of the European community. One of them is the Waste in Electro-Electronics Engineering WEEE directives. And the other one which probably impacts us more immediately is the ROHS-that is the restriction of the hazardous substances directive.*

The manager at Atlas which exports to countries the world over explains that:

> *We operate so that we can supply the toughest market. So Europe is an important driver. For instance in the EU, the UK supermarket chains tend to have quite stringent standards and environmental expectations.*

She further explains that when marketing internationally they rely on the clean and green New Zealand image. It therefore becomes very important that their environmental measure go beyond regulatory requirements and actually reflect their contribution in keeping this image intact:

> *Because we very very much rely on our marketing as a clean green country. Our cows have free access to pasture, being outside year round, clean waterways. I mean that is very much the image that the marketing present. So it is very important that it is reflected in reality, in what we do.*

> *So we are involved with all those (additional) measures with farmers and suppliers to ensure that, that is the reality.*

Similarly the manager at Skyes explains their additional environmental activities to the requirements of having to export to Japan:

> *In some instances they do. ISO 14001 for example remains a pure customer requirement. We do it to get the contract.*

> *Another example is that in Japan there is a standard where there is very very low limit on formaldehyde emissions. The Japanese have regulated, have very strict standards on that, but yes to export to that market we have to comply.*

The managing director at Keratin explains that his ambition to have the cleanest scourers in New Zealand is also driven by the need to meet the requirements of his European clients:

> *Because the clients in Europe are now demanding where wool is scoured, they want to know where wool is scoured and if you have discharge into the sea or the river or land based – they say we don't want to deal with you because you are affecting the environment. It is coming mainly from Germany and Europe, but it's actually happening now, but that's creeping in for sure.*

Finally the manager at Amity explains that:

> *Some of our customers are other businesses, other organisations. We also sell ingredients or sauces to other retail chains or restaurants internationally. So lot of them are other multinationals companies themselves. They have their own environmental measures and they*

would come and audit us to see if we are a suitable supplier, about environmental management systems being consistent with ISO 14001.

Organizations in New Zealand thus attribute some additional aspects of their environmental responsiveness to the requirements of their organizational customers in developed countries. However an interesting aspect about organizations in New Zealand who export to both developed and developing countries, is the contrast between the environmental expectations of organizational customers in developing and developed countries. This is highlighted in the following extract from the interview with the manager at Solitaire:

> *The principal markets which are steel manufacturing markets in Asia, demand our coal and I think they would do so even if we had a body count of 100 people per tonne or something but they would still want the coal.*
>
> *But it would be fair to say that some of the European specialist markets where we looked at, they are being pressurized for environmental credibility, if you like, in all their supply chain, we would then start to see that pressure develop but as such it isn't is a big part of our market yet. Currently we are exporting mainly to Japan, China, Korea, India, South Africa, Australia, Brazil, and Chile.*

To summarize this section the case study organizations in New Zealand who exported to organizational customers in other developed countries had in some cases to make additional environmental efforts to comply with the environmental requirements of these organizational customers. These demands were however not observed to exceed first order requirements.

Thus organizational customers in other developed countries can be credited with driving environmental responsiveness in New Zealand organizations to the extent that these requirements are additional to and exceed current regulatory requirements in New Zealand.

6C.1.6 Does the effect on bottom-line drive organizations in New Zealand to be environmentally responsive at the first / second order?

Six of the 12 case study organizations in New Zealand reported that the environmental measures in place at their organizations had in some (but not all) cases resulted in cost savings. Like the organizations in India this was regarded as a very positive effect of the environmental measures at those organizations. However for none of these eight organizations were *the resultant cost savings* an initial driver. As the manager at Skyes explains compliance has in some cases *led* to cost savings:

> *The first thing of course is compliance. However we have observed that in some situations compliance has resulted in waste reduction and that has lead to cost reduction.*

Similarly at Fabio *some* of the environmental measures such as recycling plastic bags have *resulted* in cost savings:

> *Sometimes you can achieve that win - win balance between the environment and achieving lower cost as well. Like, for exampling recycling our plastic bags; that means we don't have to dump it, we can recycle it. It's a win – win situation for us.*

The manager at Keratin cites one incidence of having saved substantial costs.

> *We were one of the first to use the 20 tonne containers rather than those that which used 16 tonne containers. So we save energy. It is more common to get 100 tonnes in six containers but we now get them only in five containers.*

The response of the manager at Atlas further underscores the point that environmental investments do not always result in cost savings but when they do:

> *It is very much a win- win situation **in the situations where** we can achieve that.*

The response of the manager at Amity highlights the fact that only some of the environmental measures have resulted in cost savings.

> *The costs of compliance have increased over the years. 18 months ago they had a landfill increase of sort of 40 percent. So when you put that across – all of the wastes coming from sites, we actually managed to reduce our total spend on solid wastes.*

> *So we may not have necessarily had an overall reduction* of costs but we have definitely have overall mitigated …we have a lot of those changes to those costs.

Finally the manager at Marion points out that although some environmental measures have resulted in cost savings but that is not a driving factor:

> *The effect on the financial bottom line, although it does happen positively in some cases would not be a major driver in the sense of the size of the impact on the budget. We don't tend to think about them (environmental measures) in those terms*

Thus it appears that environmental measures do result in cost savings in some but not all cases of environmental investments. Thus they are viewed as a positive consequence but have not been identified as the cause of environmental investments in the case study organizations in New Zealand.

6C.1.7 The role of top management

The findings obtained from the case analysis reveal that in both first and second order organizations in New Zealand top managers were observed to facilitate rather than drive corporate environmental responsiveness. As discussed in the previous sections the drivers were largely observed to be external, however in some organizations proactive top managers greatly aided the adoption of environmental responsiveness. This is illustrated in the following response of the manager at Marion:

> *Well the top management is very important. Because we can't actually drive it without the top management being involved, it's like a cultural thing, for example the safety culture, I am working on at the moment and I have got a CEO who is proactive and he is getting involved. So if the senior management don't champion a particular aspect of the culture it doesn't easily happen so as I said it's a management thing.*

Even though the responses of all the managers stressed on the importance of the supportive role of the top management, however in doing so these responses reinforce the argument that the catalysts for environmental responsiveness remain external. This is indicated in the following response by the manager at Skyes:

> *Umm…. The top management is very supportive. Clearly from a client point of view there is absolute commitment to comply with the law and it comes from the top management and the board because we are a large public listed company. We simply can't contemplate non-compliance with the law.*

The response of the manager at Amity further illustrates this point:

> *I don't think……they drive……but they do expect our environmental performance to be fully in compliance.*

Furthermore in indicating the importance of the legal counsel, the manager at Solitaire further hints at the important role of external drivers.

> *I would say that the CEO and I and our legal consul, I would classify as internal champions and I think we do have a lot of influence how things go and it is top down rather than bottom up.*

The manager at Atlas attributes the business sense of the top managers with their support for environmental issues:

> *I think because they (the top managers) are just astute business people and they acknowledge that sustainability is no longer just economic sustainability. I think it is the realization that it is an astute business practise for them to be supportive in this area.*

The response of the manager at Waite very eloquently sums up the role of the top managers at his organization:

> *In principle they have been very supportive. I mean there is nobody who will argue against the principles of environmentalism, but in terms of concrete support, this programme was put in place when the company was actually under a heavy financial strain. We were going through a major product development programme that has been going on for the last five years or so to bring out a completely new modern range of products.*
>
> *Because of that we were under severe financial pressure. So there was a lot of pressure on overheads and costs. And anything ….ah…, which costs money, which was regarded as non-essential, was frowned upon.*
>
> *So the way I had to conduct the environmental programme was on the basis that we will only do things which had to be done or resulted in cost savings and from that point of view I got I guess relatively neutral to mildly positive support from my colleagues.*

To conclude, the responses of all the case study organizations stressed on the importance of support from the top managers. However top management was observed to facilitate and

support the environmental initiatives rather than being the initial driving cause for corporate environmentalism.

6C.2 Summary of Findings

First order responsiveness, in the case study organizations in New Zealand was observed to be driven by the necessity to comply with the regulatory requirements. The effective regulatory institutions in New Zealand ensured that compliance with environmental regulations was not negotiable. The expectations of the community stakeholders reinforced the compliance requirements. For those organizations in New Zealand who traded with organizational customers in other developed countries, the demands of these organizational stakeholders also drove some aspects of their first order responsiveness.

The organizations in New Zealand who were at the second order responsiveness shared a common reputation of being dirty and pollution intensive industries. Unlike the community pressure faced by the organizations at the first order (which essentially required environmental housekeeping), these organizations faced severe community resistance to their operations. In addition their operations also attracted highly publicized, planned and ongoing direct action campaigns by environmental NGO's. These two in conjunction posed a serious threat to their license to operate. These organizations went beyond first order responsiveness in order to *earn their license to operate* from their detractors. Table 6.24 below summarizes the discussion regarding drivers of first and second order corporate environmentalism in the case study organizations in New Zealand.

Table 6.24 Summary of drivers of environmental responsiveness in case study organizations in New Zealand

	Organization	Regulatory pressure	Community pressure	Domestic consumers	Organizational customers in other developed countries	Threat to license to operate
First order	Amity	√	√	X	√	
	Keratin	√	√	NA	√	
	Fabio	√	√	NA	NA	
	Shield	√	√	X	NA	
	Hercules	√	√	X	NA	
	Skyes	√	√	X	√	
	Marion	√	√	NA	NA	
	Atlas	√	√	NA	√	
	Waite	√	√	NA	√	
Second order	Solitaire	√	√	NA	NA	√
	Sunrise	√	√	X	NA	√
	Phoenix	√	√	X	NA	√

CHAPTER 7

DISCUSSION

Summary

This concluding chapter commences by summarizing the major findings of this research. The framework that emerges from the findings is then conveyed through a set of theoretical propositions. The chapter ends with a discussion of the implications and the limitations of this research.

7.1 Summary of Findings

The central question that this research addresses is:

> What drives business organizations in developing and developed countries to be environmentally responsive?

As discussed in the introductory chapter this question has assumed heightened importance because even moderate levels of global warming are predicted to have serious consequences both for economic performance of businesses and for societal welfare in general (IPCC, 2007; Millennium Ecosystem Assessment Synthesis Report, 2005; Stern Report, 2006). Accordingly even though critics continue to debate the need for the urgency of response to climate change (Weitzman, 2007), yet the application of the precautionary principle[8] in most national and international legislations has led to an increased pressure on business organizations to be environmentally responsible (Dunphy et al., 2007; Roper, Collins, & Toledano, 2004). It therefore becomes imperative to gain an understanding (from theoretical, practitioner and policy viewpoints) of the factors that can propel organizations towards being environmentally

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[8] The precautionary principle as defined in principle 15 of the Rio Declaration on Environment and Development (1992) states that: in order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damages, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environment degradation.

more responsive. However attempts at addressing this issue have so far resulted in incomplete, unsatisfactory and conflicting answers (Kassinis & Vafeas, 2006; Russo & Harrison, 2005) even in the context of developed countries (wherein the majority of extant research in this area is based). Additionally the developing country perspective, where the bulk of industrialization is now shifting, is largely absent from our current understanding (Jeswani et al., 2008). The studies that do examine corporate environmentalism in developing countries have restricted their scope to examining environmental responsiveness of organizations with multinational ownership or linkages (Christmann & Taylor, 2001, 2006; Hansen, 2003; Jeppesen & Hansen, 2004; Ruud, 2002; UNCTAD, 2002). The domestic firm, independent of MNC interests, however has largely missed being the focus of investigation in the developing countries[9]. This research was thus formulated with the distinct objective of addressing these gaps.

The findings of this research indicate that first order responsiveness in organizations in India (the developing country in this study) is essentially driven by pragmatism arising out of a desire to capitalise on the opportunities of doing business in developed countries. A necessary condition for being able to avail these opportunities is exhibiting environmental responsiveness of at-least the first order. These organizations in India thus invest in environmental requirements of the first order as it ensures greater profits. The motivation for first order responsiveness in organizations in India can thus be aptly described as profit maximization, as it is the desire to increase profits that propels organizations in India to take into account the necessary first order environmental responsiveness.

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[9] An exception is the recent study by Jeswani et al. (2008) that examines corporate strategies adopted by energy intensive businesses in Pakistan. The focus however is on strategies adopted but not on the drivers that propel them to adopt these strategies.

For organizations in India who choose to be at the second order of responsiveness the drivers emanated from their unique organizational history and a deeply embedded organizational culture of being socially responsive. In response to the current threats posed by changes in the natural environment, these organizations have extended their social responsiveness to include environmental issues (much beyond the call of regulations, or demands of organizational customers, consumers and society). Second order environmental responsiveness in these organizations is thus driven by their unique organizational identity, rooted in their century long history of social responsiveness.

Despite the enactment of comprehensive environmental regulations, poor enforcement by the regulatory authorities in India leads to the finding that regulations were not considered a driver for corporate environmentalism of either first or second order. Similarly pressure from consumers or the wider society was not observed to be a driving factor for corporate environmentalism for either first or second order responsiveness. Finally cost savings as a result of implementing environmental measures was observed to be an effect but not the driving cause for corporate environmentalism in the organizations in India.

In the organizations in New Zealand a clear driver emerged for first order responsiveness: the necessity of having to comply with environmental regulations. The strictness of the enforcement regime in New Zealand implied that (unlike in India), compliance with environmental regulations was not negotiable and was a necessity. Organizations in New Zealand thus did not have the option of choosing to be environmentally responsive (for wanting to earn greater profits), but needed to be environmentally responsive or risk the penalties associated with non compliance. Along with regulations, the organizations in New Zealand also felt the need to be environmentally responsive at the first order to be in

concordance with the currently prevalent societal expectations in New Zealand. However for the first order organizations in New Zealand, the societal expectations did not extend beyond demanding and expecting compliance with the resource consent requirements. The societal expectations thus reinforce the need to comply with regulations. Consequently the primary motivation for first order responsiveness in New Zealand organizations can be termed as **compliance**. Compliance best describes the motivation for first order environmental responsiveness despite the fact that some organizations in New Zealand who export to other developed countries, chose to adopt additional measures such as ISO 14001. This is so because compliance with existing regulatory standards forms the baseline for ISO 14001 certification (Welch, Mori, & Aoyagi-Usui, 2002).

The organizations in New Zealand who were at the second order responsiveness (unlike the organizations at second order in India) were all observed to be "dirty industries". They had all been singled out by the media, the community and the environmental NGO's as being extremely environmentally damaging. Thus while community expectations to be environmentally responsive were reported by organizations at the first order, the magnitude and the scale of this pressure was much more magnified when dealing with the organizations at the second order in New Zealand. The stringent direct action campaigns against the second order organizations did not merely seek a change in their environmental practices, but a ceasing of their business operations and a cancellation of their license to operate, unless they made substantial improvements over and above the regulatory requirements. Thus the motivation for higher order responsiveness in these organizations can be linked to the threat to their license to operate.

Despite the basic and underlying differences in the motivations to be environmentally responsive in organizations in India and New Zealand, one unexpected similarity was that consumers in New Zealand also did not drive organizations to be environmentally responsive. Also improvements in bottom line were once again observed to be a very welcome consequence as opposed to being a driving factor for first and second order environmental responsiveness in organizations in New Zealand. Additionally top management was observed to facilitate adoption of first and second order environmentalism (in response to external pressures) rather than being an initial driver. Figure 7.1 below summarizes the motivations for environmental responsiveness in organizations in India and New Zealand.

	First order	**Second order**
India	Profit maximization	Social responsiveness
New Zealand	Compliance	Threat to license to operate

Figure 7.1 Summary of motivations for first and second order environmental responsiveness in organizations in India and New Zealand

7.2 Emergent Theory about the Drivers of Corporate Environmentalism in Developing Countries

7.2.1 Regulations

Corporate environmentalism in developing countries has been reported to be largely non existent (Jeswani et al., 2008) or if present, it has been characterized as being confined to a few large organizations (D'Souza & Peretiatko, 2002; Hartman et al., 1997; Hettige et al., 1996; Jeswani et al., 2008; Rock, 2002; Stuligross, 1999). For long, the prevailing perception

has been that lax enforcement of environmental regulations in developing countries leads to a race to the bottom and this in turn has resulted in developing countries becoming pollution havens for multinational operations (Castleman, 1987; Gladwin, 1987a, 1987b; Lepkowski, 1987; Pearson, 1985, 1987; Shrivastava, 1992). The case for severe regulatory failure in developing countries (especially in regards to implementing pollution control laws) is widely supported (D'Souza & Peretiatko, 2002; Dasgupta et al., 1997; Rugman & Verbeke, 1998a; Stuligross, 1999). For example Dasgupta et al (1997), in their study regarding compliance with pollution regulation in China, concluded that local regulators apply considerable discretion in judging non compliance and often are reluctant to impose penalties. Under-reporting, and under-assessment of environmental contraventions is a common practice in China and rules are often bent at the discretion of the regulators (Dasgupta et al., 1997). Similarly in India, it has been reported that lack of enforcement and corruption prevent effective regulation of pollution laws (D'Souza & Peretiatko, 2002; Stuligross, 1999). These studies support the findings of this research wherein the participants widely reported that poor enforcement of environmental regulations meant that regulations were not a driving factor for their environmental responsiveness. This leads to the following proposition:

> *Proposition 1: Because of lax enforcement, environmental regulations will not be a primary driver for corporate environmentalism in business organizations in developing countries.*

7.2.2 Internationalization as a driver for first order responsiveness

Despite the ineffective enforcement of environmental regulations in developing countries, the evidence presented by recent studies (Christmann, 2004; Christmann & Taylor, 2001, 2006; Jeppesen & Hansen, 2004; Luken & Stares, 2005) not only contradicts the pollution haven viewpoint but in fact lauds the multinationals for *"creating islands of environmental excellence in a sea of dirt"* (Ruud, 2002, p. 103). However it is important to point out that other studies have found no link between multinational linkages or ownership and

environmental improvements (Hartman et al., 1997; Hettige et al., 1996). But irrespective of this debate, a third viewpoint in the literature points to the fact that as the challenges associated with climate change become better understood and also as globalization becomes more pervasive, the status quo of corporate environmentalism in business organizations in developing countries might be in for a positive change (Dasgupta et al., 1995; Nair & Menon, in press; Pradhan & Barik, 1999; Rao, 2002, 2004). The findings of this study are aligned with this third viewpoint.

The findings of this study indicate that as business organizations in developing countries become more integrated with the global economy (be it through linkages such as outsourcing for, or exporting to, organizational customers in developed countries, or through opting to open subsidiaries in other developed countries), in all these cases they are forced to improve their environmental standards such that they correspond to the environmental standards prevalent in their chosen markets. Prior literature in international business suggests that internationalization of firms can under certain conditions (such as regulatory differences between host and home nations) be associated with improvement in environmental performance (Bansal, 2005; Bansal & Hunter, 2003; Kostova & Zaheer, 1999; Levy, 1995; Rugman & Verbeke, 1998a, 1998b). Additionally the literature pertaining to the greening of supply chain (Darnall, Jolley, & Handfield, 2008; Sharfman, Shaft, & Anex, in press) suggests that when buyers and suppliers are separated by large cultural, physical and institutional distances, the buyers often demand that suppliers be ISO 14001 certified. While ISO 14001 certification is not restricted to organizational suppliers in developing countries and is fast becoming a favoured environmental standard, even when suppliers and buyers are located within developed countries (Darnall et al., 2008; Potoski & Prakash, 2005), it however assumes a greater relevance when the suppliers are in distant developing countries

(Christmann & Taylor, 2001, 2006). This may be attributed to three reasons. Firstly ISO14001 is one of the few environmental management standards that is characterized by compulsory third party audit (Potoski & Prakash, 2005). Secondly, the annual recertification requirement comes with an inbuilt threat that ISO 14001 certification can be revoked. Thirdly the credibility of ISO 14001 has been further enhanced by research which suggests that ISO 14001 adoption results in actual improvements in environmental performance as compared with other standards that lack third party verification (Potoski & Prakash, 2005). ISO 14001 certification therefore provides an assurance of compliance with the requisite environmental standards and also checks against free riding. It therefore assists in reducing information asymmetries and opportunistic behaviour between supply chain partners (King et al., 2005; Potoski & Prakash, 2005). Thus in developing countries characterized by lax environmental implementation, ISO 14001 certification not only bestows a symbolic legitimacy, but also guarantees the existence of actual environmental standards (Potoski & Prakash, 2005). Thus even though the costs of ISO 14001 are not trivial; it can cost over $100, 000 to certify just one facility (Potoski & Prakash, 2005; Prakash, 1999), the legitimacy bestowed by ISO 14001 makes it a worthwhile investment for suppliers in developing countries (Christmann & Taylor, 2006). Accordingly an increasing number of business organizations in developing countries are adopting ISO 14001 certification (Nair & Menon, in press; Rao, 2002, 2004).

However apart from stakeholder pressure (in the form of multinational organizational customers), the *liability of foreignness* (Kostova & Zaheer, 1999, p. 73) that comes into play when organizations set up manufacturing facilities in other countries imposes additional legitimacy requirements (Suchman, 1995). The cognitive pillar of institutional theory (Myers & Rowan, 1977) ensures that when firms decide to set up manufacturing facilities in host countries (especially when the host countries are developed countries) they face additional

environmental expectations as compared to the organizations that opt to internationalize through exporting, outsourcing etc (Kostova & Zaheer, 1999). All the organizations from India in this study were however involved in both exporting and setting up manufacturing subsidiaries. Consequently they were simultaneously exposed to both the stakeholder requirements and the augmented legitimacy requirements imposed by institutional pressures.

Institutional and stakeholder theories hence provide a framework for understanding what drives organizations in developing countries to be environmentally responsive at the first order. While resource based competencies developed during internationalization (managers with international experience, capital management experience, organizational slack as a result of increased revenues etc), were not observed to be a driving factor, they do however appear to provide a platform that facilitates the development of capabilities needed for first order environmental responsiveness. The findings of this study thus suggest that even under conditions of lax enforcement and an institutionalized regulatory failure, the demands of multinational organizational customers in developed countries and the institutional pressures for legitimacy arising as result of the liability of foreignness ensures that the large business organizations in developing countries adopt and confirm with at least the first order environmental responsiveness. Formally:

> *Proposition 2: First order corporate environmentalism in business organizations in developing countries is driven by institutional pressures arsing out of the liability of foreignness and by the demands of multinational organizational customers.*

7.2.3 Higher order environmental responsiveness as an extension of social responsiveness

The organizations in India that were at the higher order responsiveness shared a commonality with the organizations at the first order responsiveness in the sense that like the organizations at the first order, these organizations were also an integral part of the current vibrant phase of

economic growth in India. They were thus actively involved in exporting, outsourcing, etc and also had a rapidly growing portfolio of international subsidiaries in both developed and developing countries. However while the organizations at both the first and second order faced similar internationalization and stakeholder pressures yet the environmentally responsive measures at the second order organizations were not limited to the demands imposed by external institutional or multinational organizational requirements. Consequently while the demands posed by internationalization explains the drivers for first order corporate environmentalism, it however does not explain why some organizations in a developing country go much beyond what is expected or required of them in terms of environmental responsiveness. This is especially intriguing considering the absence of regulatory or societal requirements for higher order responsiveness in developing countries (Cummings, 2008).

Furthermore unlike the second order organizations in New Zealand, the organizations in India were not considered particularly dirty. Thus Endeavour is a manufacturer of essential FMCG's (soap, detergents, cooking oil etc) and has a relatively low impact on the environment. Similarly ICLL is a diversified group whose businesses include IT consultancy, hotel chains, manufacturing apparel, paper, incense sticks, cigarettes, etc. Cigarette manufacturing (one of ICLL's businesses) can be considered socially undesirable, but is not environmentally as taxing as for example fertilizer manufacturing might be. Interestingly the industries that are associated with excessive environmental pollution (according to standards prescribed by toxic release inventory[10]) such as chemical (Organochem), petroleum (Valiance), and fertilizers (Sun) were all at first order responsiveness in India. Cosmos whose core business is steel manufacturing can qualify as a dirty industry by western standards.

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[10] The TRI standards have been used for explanatory purposes only, as they are more widely known. Firms in India are not required to publicly disclose emissions of specific pollutants, however for classification purposes a similar scheme in India involves categorizing organizations as red, orange and green. Firms in green category are associated with very low emissions of hazardous wastes.

However even though it can be considered "technically dirty" (i.e. it can be classified in the category of heavy polluters according to toxic release inventory standards) it faces no threat to its *license to operate* from NGO or community campaigns. Thus while steel making can be viewed as energy intensive and dirty in developed countries yet for a developing country like India, steel making industries are considered partners in nation building. They consequently do not have the same negative connotation for societies and regulators as they might have in developed countries. In fact Abul Kalam Azad the then President of India while facilitating Cosmos on its centenary celebrations proudly correlated the amount of steel consumed by a country and the economic development occurring in the country (personal communication from the environmental director at Cosmos, 2007)[11]. A popular slogan in India "microchips not potato chips" (Gardberg & Fombrun, 2006, p. 339) provides further insight into the basis for this viewpoint. According to Gardberg and Fombrun (2006) this slogan, reflects the political and societal tolerance in India, towards industries perceived as producing technically valuable goods, however investments viewed as frivolous and non essential (for example potato chips and soft drinks) are not accorded a similar level of acceptance (Gardberg & Fombrun, 2006). Thus unlike a western socio- political context, the environmental attributes of steel making do not feature prominently into the equation, especially when weighed against its contributions to the nation's self sufficiency in steel (an integral component of economic development). The organizations at the second order responsiveness were thus not subject to threats from environmental NGO's. Neither were they under societal or regulatory pressure to be at the higher order responsiveness. Nor were these organizations pressurized by the requirements of internationalization or of their multinational organizational customers in developed countries (who demanded no more than first order responsiveness). So why did they choose to be at higher order responsiveness? This research suggests that the answer to

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[11] Conveyed during the interview (conducted on February 6, 2007) with the environmental manager at Cosmos Steel.

this intriguing question lies in their unique organizational identities which in turn can be traced back to their respective organizational history and culture.

Thus the findings of this study indicate that each of the organizations at higher order responsiveness in India had at least a century long history of being prominently socially responsive. These organizations accordingly have built schools to provide free education[12], built specialist hospitals, assisted the United Nation's in combating HIV, have contributed towards women's education and emancipation, taken up the cause to make illiterate farmers computer savvy and opened up schools for physically and mentally challenged children (to name but a few of the vast range of their socially responsive activities). They thus have a firmly established organizational identity of being socially responsive. With the challenges being posed by the natural environment becoming better understood, these organizations have responded in a manner that is consistent with their organizational identity and have extended their deep rooted social responsiveness by adopting higher order environmentalism. The idea of environmental responsiveness as an extension of social responsiveness has long been a part of the literature on corporate social responsiveness (Carroll, 1979; Frederick, 1978; Gardberg & Fombrun, 2006; Margolis & Walsh, 2003; Matten & Moon, 2008; Wartick & Cochran, 1985). Accordingly for these organizations higher order environmentalism was a continuation of their long history of prominent social responsiveness. The findings further explain that social responsiveness in these organizations had its roots in the vision of the respective founding fathers and is reflected in the policies of the current top management. Whiteman and Cooper (2000) use the term *"ecologically embedded"*, (p. 1267) to describe such organizations which are characterized by top managers with a strong personal identification with local social and ecological systems. According to them such organizations exhibit a

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[12] Unlike in developed countries, the government in India does not provide free primary and secondary education. While the state schools have lower fees than private education providers, the much better infrastructure and higher quality education provided by the private schools makes them the preferred option.

higher order commitment to social and environmental practices. The importance of the values of the beliefs of top managers as a driver for environmental responsiveness has also been pointed out by Collins and colleagues (Collins, Lawrence, Pavlovich et al., 2007; Lawrence et al., 2006). The literature on leadership provides further support for ecologically embedded organizations being guided by the vision of transformational founding fathers which then is carried forward by strong charismatic leaders (Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006; Bono & Judge, 2003; Egri & Herman, 2000). But what happens with changes in leadership (or a change in priorities of leaders)? Is higher order environmental responsiveness fickle to the whims of leadership changes? The literature on organizational identity suggests that an identity that has been chalked out over a century cannot be easily disowned (Dutton & Dukerich, 1991). It instead tends to deepen through the years (Margolis & Walsh, 2003). Galaskiewicz (1997) in his study on corporate philanthropy concluded that once established the charitable contributions continued at the same rate irrespective of who was leading the firms. Recent research in organizational identity by Brickson (2007) further reiterates the viewpoint that organizational identities (while not immutable) are stable and are resistant to change. One consequence of a stable identity is that it can lock in organizational behavioural patterns (Brickson, 2007). Thus identities not only situate and define organizations but also provide the moorings for future organizational vision (Albert, Ashforth, & Dutton, 2000; Dutton & Dukerich, 1991; Scott & Lane, 2000).

Thus for organizations in this study who were at higher order environmental responsiveness, social responsiveness has been a defining feature of the organizational identity for the last 100 years. Under threats posed by environmental changes these organizations have responded in concordance with their organizational identity and have included higher order environmental responsiveness as an integral part of their social responsiveness. The literature on corporate

citizenship, through suggesting that organizations which have been rooted in a community for a long time tend to contribute more and at higher levels than other industries (Gardberg & Fombrun, 2006), further supports this viewpoint. The resource based view also strengthens the contention that organizations with a strong corporate identity (in this case of higher social/ environmental responsiveness) will not "digress from the founder's vision" (Oliver, 1997, p. 702). According to the resource based view, resources (such as an organizational identity of being socially responsive) result from unique path dependent capabilities which in turn are rooted in organizational history and culture. According to Oliver (1997) these resources derive "their value from time compression diseconomies, that is from development over a long period of time" (page 702) and the embeddedness of these competencies in history ensures their perpetuation (Barney, 1991; Conner, 1991; Oliver, 1997)

Thus such organizations which are "culturally attuned to responsible behaviour" (Basu & Palazzo, 2008, p. 131) and have deep rooted resource based capabilities for successfully implementing socially responsive strategies are not subject to the rapid disengagement that might occur with change in the top management priorities in other less committed organizations (Basu & Palazzo, 2008; Galaskiewicz, 1997)

Another related issue that merits a discussion in regards to corporate social and environmental responsiveness (CSER) by organizations in developing countries is that CSER activities in developing countries are not subject to the same filters of appropriateness as in developed countries (Basu & Palazzo, 2008; Gardberg & Fombrun, 2006; Jamali, 2007; Matten & Moon, 2008). Thus CSER activities in developed countries are often challenged and sometimes even considered inappropriate because organizations are viewed as interfering and stepping into the realm where public policy instruments might be more effective (Gardberg &

Fombrun, 2006; Margolis & Walsh, 2003; Matten & Moon, 2008). The realities of developing countries are however vastly different (Jamali, 2007; Matten & Moon, 2008). Contrary to western standards of what constitutes appropriate CSR, resource starved governments and societies in developing countries, not only welcome but expect corporate social and environmental initiatives involving greater depth and magnitude than might be considered appropriate by businesses, regulators and societies in developed countries (Basu & Palazzo, 2008; Gardberg & Fombrun, 2006; Jamali, 2007; Matten & Moon, 2008). Furthermore unlike in western cultures wherein a mastery of nature orientation prevails (exemplified by the belief that nature can and should be controlled by technology), the underlying culture in most developing societies stresses on harmony and interdependence between natural environment and humans (Gardberg & Fombrun, 2006). As an example, Hinduism (the dominant religion in India) promotes collectivism and congruence with nature (Gardberg & Fombrun, 2006). In such societies organizations that extend their social responsiveness to protection of the natural environment beyond the call of pragmatic necessities are widely respected. Accordingly organizations that commit to continuous corporate social and environmental responsiveness benefit through being bestowed with long term moral legitimacy (Basu & Palazzo, 2008; Margolis & Walsh, 2003; Suchman, 1995). While moral legitimacy is extremely difficult and elusive to obtain, it is also very profound and self sustaining once established (Suchman, 1995). The stock of social capital created resulting from moral legitimacy creates a reservoir of goodwill and stands the organization in good stead in isolated reversals (Bhattacharya & Sen, 2004; Sen & Bhattacharya, 2001; Suchman, 1995).

Thus the self sustaining virtuous circle of intangible and tangible benefits, which result from an organizational identity based in social responsiveness (Bansal & Clelland, 2004; Basu & Palazzo, 2008; Brickson, 2007; Gardberg & Fombrun, 2006; Margolis & Walsh, 2003)

ensures that such ecologically embedded organizations in developing countries respond to

environmental challenges through higher order environmental responsiveness. Formally

stated:

*Proposition 3: Organizations in developing countries who over a period of time have
developed an identity based on deep rooted capabilities in social responsiveness will
respond to environmental issues at higher order responsiveness.*

Figure 7.2 summarizes the drivers of first and second order corporate environmentalism in

developing countries.
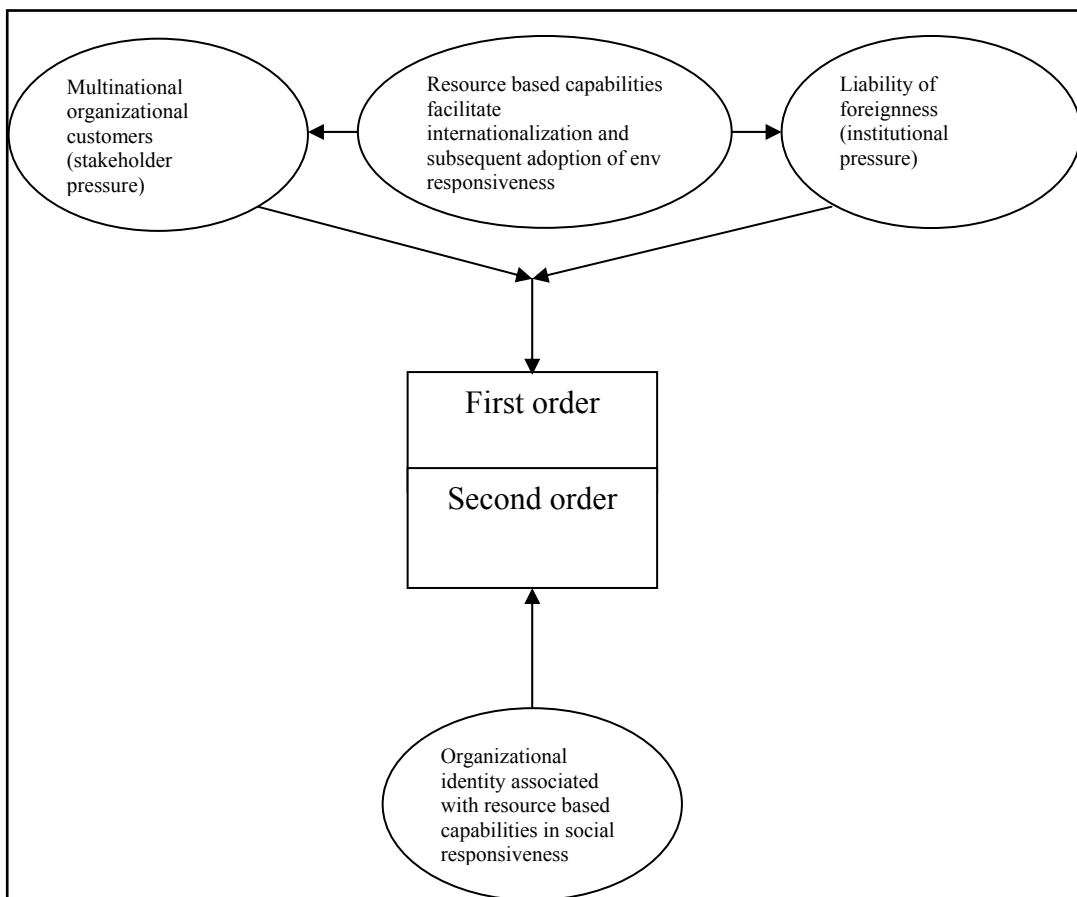
Figure 7.2 Drivers of corporate environmentalism in developing countries

7.3 Emergent Theory about the Drivers of Corporate Environmentalism in Developed Countries

7.3.1 Compliance as a driver for first order responsiveness

The necessity to comply with environmental regulations emerged as a major driver for first order corporate environmentalism in organizations in New Zealand. This ubiquity in organizational responses in attributing first order responsiveness to regulations can be explained by institutional theory. According to institutional theory (DiMaggio & Powell, 1983; Myers & Rowan, 1977; Oliver, 1991; Scott, 1987), the coercive pressures resulting from stringently enforced regulations leads to compliance being accepted as given. Moreover the existence of a common legal environment (which is also strictly enforced) results in an "inexorable push towards homogenization" (DiMaggio & Powell, 1983, p. 148). Organizations hence start responding to coercive institutional pressures in an isomorphic fashion and in doing so further entrenches compliance as an institutionalized norm (DiMaggio & Powell, 1983). Accordingly the findings of this study suggest that stringently enforced regulations in New Zealand have lead to the generation of coercive pressure which over a period of time has resulted in organizations accepting compliance with environmental regulation as an institutionalized norm.

Furthermore institutionalized norms become embedded not only in organizational contexts but also in societal contexts (Oliver, 1991; Scott, 1987) and thereby are instrumental in framing societal expectations of organizational behaviour (DiMaggio & Powell, 1983; Myers & Rowan, 1977; Oliver, 1991; Scott, 1987). This provides an insight into the prevailing social paradigm in New Zealand wherein not only organizations themselves, but also society in general expects business organizations to comply with the environmental regulations. Consequently the normative pressures imposed by society also lead organizations to comply

with the regulatory requirements (DiMaggio & Powell, 1983). Thus the normative pressure imposed by societal expectations in New Zealand further reinforces and strengthens the coercive pressure on organizations to be environmentally responsive at the first order.

The findings of this study thus indicate that first order responsiveness in organizations in New Zealand is driven by coercive and normative institutional pressures aimed at compliance with regulations. However, the importance of regulatory institutions in driving organizations in New Zealand to be environmentally responsive remains contested in the existing studies. While Springett (2003) reports a compliance oriented environmental responsiveness in the large organizations in New Zealand, the findings of Collins and colleagues (Collins, Corner, Kearins, & Lawrence, 2004; Collins, Lawrence, Pavlovich et al., 2007; Collins, Lawrence, & Roper, 2007; Lawrence et al., 2006) suggest that it is the personal values and beliefs of the managers that drives organizations (both SME and large) to be environmentally responsive.

However, notwithstanding the importance of personal values and beliefs of managers, the findings of Collins et al. also point out that the larger organizations in New Zealand are more likely to report regulatory drivers in the form of pressure from local and central governments to be environmentally responsive (as compared to SMEs) (Collins et al., 2004; Collins, Lawrence, Pavlovich et al., 2007; Lawrence et al., 2006). Previous studies in the context of other developed countries also support the importance of regulatory drivers of corporate environmentalism (Banerjee et al., 2003; Blum-Kusterer & Hussain, 2001; Gonzalez, 2005; Henriques & Sadorsky, 1996; Prakash, 2001).

The findings of this study further indicate that the organizations in New Zealand, that are exporting to other developed countries, can face additional pressures, which may in some

cases extend beyond the mandatory domestic regulatory requirements (although they remain limited to first order responsiveness). However, this finding does not detract from the significance of domestic environmental regulations as the primary driver for first order responsiveness in New Zealand. This can be attributed to three reasons. Firstly, a fundamental difference in the internationalization choices of organizations in New Zealand and India was observed in this study. Internationalization for organizations in India entailed not only exporting, outsourcing etc, but also setting up manufacturing operations and subsidiaries in other developed and developing countries. However, for organizations in New Zealand internationalization was largely observed to be through exports. The legitimacy requirements imposed by internationalization differ depending on whether an organization is exporting or whether it also has subsidiaries that are physically located in foreign countries. In the latter case environmental regulations of the host country become much more significant (Rugman & Verbeke, 1998a, 1998b). However because the organizations in New Zealand in this sample were primarily exporting (and did not have manufacturing operations abroad) therefore the environmental obligations posed by internationalization do not diminish the pre-eminence of strictly enforced domestic regulations as drivers of first order corporate environmentalism.

Secondly, the export requirements by organizational customers in other developed countries often demand no more than ISO 14001 certification[13]. However the baseline for ISO 14001 certification is compliance with domestic regulatory requirements (Welch et al., 2002). Thus while technically ISO 14001, (being a voluntary self regulatory standard) can be viewed as being beyond regulatory requirements, however for organizations in New Zealand to be ISO 14001 certified, they do not necessarily have to extend their environmental responsiveness

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[13] As discussed in chapter 6C (page 188), exports to developing countries pose no additional environmental requirements.

beyond the existing domestic regulatory standards[14]. This is supported by previous research

which suggests that ISO 14001 certification is often "a purely symbolic act" even for

organizations in developed countries (King et al., 2005, p. 1103). The significance of

certification comes from ISO 14001 having gained the reputation of being a credible

mechanism for communicating the existence of environmental commitment of at least

domestic standards (King et al., 2005). ISO 14001 certification therefore reduces the fear of

opportunism and information asymmetries with distant exchange partners (King et al., 2005;

Potoski & Prakash, 2005; Stoeckl, 2004).

Thus although first order responsiveness exists in many organizations in New Zealand prior

to ISO 14001 adoption, they however still bear the additional costs of ISO 14001 certification

so as to be able to gain external social and economic rewards for their responsiveness

especially in the context of exporting to European buyers. ISO 14001 certification therefore

"reinforces rather than reorients" (Bansal & Hunter, 2003, p. 289) corporate

environmentalism. Consequently, it does not necessarily lead to environmental

responsiveness beyond existing domestic compliance requirements (Bansal & Hunter, 2003;

King et al., 2005).

Finally in certain cases export requirements can extend beyond ISO 14001 adoption. Thus for

example, Waite had to conduct an extensive LCA to be able to remove some hazardous

components from its manufacturing process as an export requirement. However compliance

with domestic regulations still remained the basic driver for its environmental responsiveness.

This is so because export requirements, while they can pose additional requirements (which

however were not observed to be beyond the requirements for first order) are not the

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[14] This is unlike the scenario in India, where lack of enforcement of domestic environmental regulations implies
that self regulation through ISO 14001 adoption would at least pull up firm environmental performance to the
extent that compliance with regulations (if enforced) would have.

underlying factor that drives business organizations in New Zealand to be environmentally responsive at the first order. Irrespective of the fact whether or not organizations in New Zealand were exporting they would still be environmentally responsive to the extent that domestic regulations demanded. Thus the underlying factor that drives organizations in New Zealand to be environmentally responsive at the first order is the necessity to comply with the strictly enforced environmental regulations. As the environment manager at Skyes explains *"Law requires us to manage environmental issues, even if we had no concerns about the environmental effects. ISO 14001 however is a pure customer requirement. We do it to get the contract".*

Formally stated:

> *Proposition 4a: First order corporate environmentalism in organization in developed countries is essentially driven by the need to comply with domestic environmental regulations due to institutionally imposed coercive and normative pressures.*

> *Proposition4b: Internationalization drives first order responsiveness in organizations in developed countries to the extent that the requirements of the host country are additional to and exceed current regulatory requirements in the parent country.*

7.3.2 Threat to license to operate as a driver for higher order responsiveness

The findings of this study indicate that the organizations in New Zealand that are environmentally responsive at a higher order are associated with environmentally high impact industries. The core businesses of these organizations accordingly spanned open cast-coal mining, manufacturing of nitrogenous fertilizers and electricity generation through coal fired thermal plants. The business operations of these organizations thus had substantial environmental impacts (e.g. they were major contributors to green house gas emissions, generated toxic pollutants, and posed serious threats to biodiversity through damaging the few remaining natural habitats of rare and endangered species). Perhaps because of a more widespread understanding of the scientific basis for climate change (IPCC, 2007; Millennium Ecosystem Assessment Synthesis Report, 2005), environmental issues have become a major

societal and economic concern especially in the current decade (Stern Report, 2006). Consequently organizations which are associated with environmentally high impact industries are often singled out (at least in the developed countries) as environmental liabilities (Preuss, 2005). These "dirty" organizations bear the brunt of public scrutiny (Banerjee et al., 2003; Bansal & Clelland, 2004; Bansal & Kistruck, 2006; Bansal & Roth, 2000; Preuss, 2005).

According to Bansal and Clelland (2004), organizations that are perceived as "dirty" are often declared environmentally illegitimate. They thus face higher unsystematic risks (Bansal & Clelland, 2004) and are forced by stakeholders to express a greater commitment to the natural environment (Levy, 1995; Oliver, 1991; Saha & Darnton, 2005; Springett, 2003). Studies both in the context of New Zealand (Collins, Lawrence, Pavlovich et al., 2007) and in the context of other developed countries (Benn et al., 2004; Dunphy et al., 2007) have reported that the threat posed to reputation, is an important driver for corporate environmentalism.

Clarkson (1995) further suggests that when issues move into the realm of stakeholder domains (and when issues such as organizational reputation become involved) then the requirements of dealing with these issues often extends beyond compliance with regulations. Accordingly organizations in New Zealand that were *not* considered to be environmentally very damaging, were generally left alone by environmental and community stakeholder groups as long as they complied with regulatory requirements. However for these high impact organizations the stakeholder expectations exceeded compliance with regulations and any proaction associated with first order responsiveness. The findings of this study thus indicate that the direct action campaigns (spearheaded by environmental and community stakeholders) against these high impact organizations did not merely seek compliance with existing environmental regulations but instead demanded either a fundamental change in the way these

organizations operate, or a cessation of their operations. Thus for example, environmental NGO's and community members sought that Phoenix Energy invest in renewable energy generation rather than continuing to generate electricity through coal fired thermal plants.

Similarly, environmental and community groups sought a cancellation of Sunshine and Solitaire's licenses to operate unless they could ensure significant process and product improvements in their environmental responsiveness. This power of NGO's and community groups in inducing radical changes has also been documented in contexts other than the natural environment (Rowley, 1997; Rowley & Moldoveanu, 2003). Perspectives from resource dependence theory (Frooman, 1999; Pfeffer & Salancik, 1978) provide an insight into the basis of this power that allows environmental NGO's and community members to get organizations to accede to their demands (Eesley & Lenox, 2006; Kassinis & Vafeas, 2006; Sharma & Henriques, 2005). According to Frooman (1999) stakeholders can use either withholding strategies (try to block firms getting access to resources) or usage strategies (attach conditions to the continued supply of resources) in order to make a firm change its behaviour. The protest actions by stakeholders in this study included both withholding strategies (for example continual protests at mining sites of Solitaire since 2004 have caused serious disruptions in mining operations), and usage strategies (for example public mobilization against the grant of further resource consents to Sunshine and Phoenix unless they improve their environmental credentials through higher order responsiveness). Thus the range, continuity and the scale of these protest actions have not only caused financial and reputational losses for these organizations but more importantly have become serious threats to the continuity of their *licenses to operate*. Shell's transformation from a "dirty oil company" to an "environmental steward" (Mirvis, 2000) under pressure by environmental

NGO's and community stakeholders corroborates the findings of this study as regards the

potency posed by the threat to *license to operate* in inducing higher order responsiveness.

Similarly the higher order environmentalism exhibited by other international environmentally

high impact organizations such as Du Pont, Dow Chemicals, British Petroleum, 3M , Exxon

etc (Christmann, 2000; Hart, 1995; Porter & Linde, 1995a; Rondinelli & Berry, 2000) provide

further support for this proposition. The findings of this study thus suggest that protest actions

involving withholding and usage strategies, result in serious threats to the *license to operate*

of environmentally high impact organizations. Therefore in order to ensure the continuity of

their existence these organizations have been forced to respond in ways that seek to portray

higher order environmental responsiveness. Formally stated:

> *Proposition 5: Organizations in developed countries, that are perceived to be*
> *environmentally high impact are considered environmental liabilities and are forced*
> *by stakeholders (who can influence access to resources needed for continuity of*
> *operations) to exhibit higher order responsiveness or face direct actions campaigns*
> *aimed at cancellation of their license to operate.*

Figure 7.3 summarizes the drivers of first and second order corporate environmentalism in

developed countries.
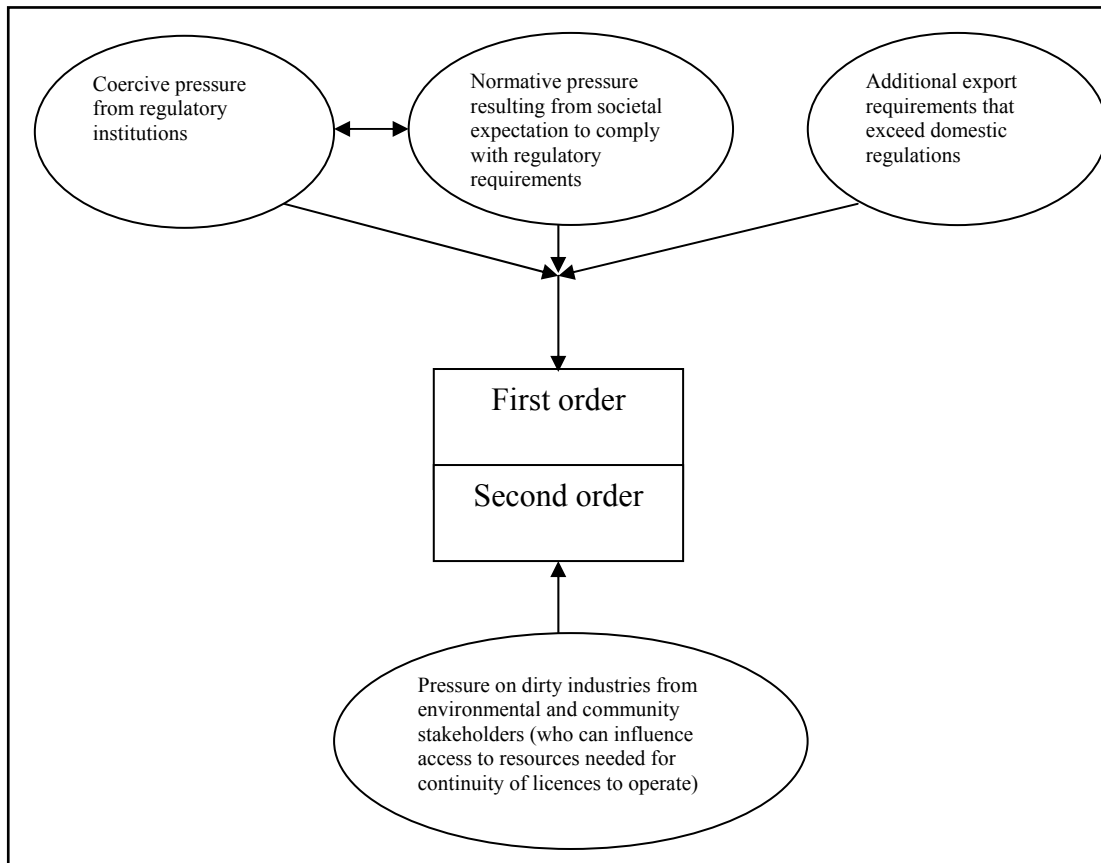
Figure 7.3 Drivers of corporate environmentalism in developed countries

## 7.4 Contributions to Theory Development and Implications of the Research

The major theoretical contribution of this research is in extending and reframing the existing

theory about the drivers of corporate environmentalism. Through operationalizing corporate

environmentalism as a two level construct this research enables a sharper probe into the

drivers of corporate environmentalism in the context of both developing and developed

countries. Previous research in the context of developing countries has indiscriminately

attributed environmental improvements to linkages with multinationals, this research however

clarifies that this holds true only for first order responsiveness (and then too only partly). This

research accordingly refines the currently prevailing theory (Christmann & Taylor, 2001,

2006; Rao, 2002, 2004; Ruud, 2002) that it is the stakeholder pressure arising from the supply

chain linkages that drives corporate environmentalism in developing countries. The theory

proposed in this research extends this viewpoint firstly through proposing that the institutional

pressures (arising out of a more comprehensively defined internationalization) are also

instrumental in driving first order responsiveness in organizations in developing countries

(P_2). Secondly existing research has not examined the drivers in organizations in developing

countries that go beyond the requirements of internationalization. The findings of this

research indicate that this higher order responsiveness cannot be attributed to the stakeholder

pressures arising from the supply chain demands or by the institutional pressures of

internationalization. Instead this higher order responsiveness arises from resource based

capabilities and organizational identities rooted in a history of social responsiveness (P_3).

From the perspective of corporate environmentalism in business organizations in developed

countries this research contributes through developing a more perspicacious perspective. Thus

while existing theory recognizes that external pressures in the form of regulations,

environmental NGO's, community members, etc are important drivers for corporate

environmentalism, this research extends theory through empirically linking the drivers with

the levels of environmental responsiveness. The theoretical propositions developed in this

research thus specify that regulations (and community expectations to comply with

regulations) are the primary drivers for first order responsiveness for business organizations in

developed countries (P_{4a}). Additionally export requirements such as ISO 14001 (although the

requirements remain limited to first order responsiveness) are also partly responsible for first

order responsiveness but only insofar as they exceeded domestic regulatory requirements

(P_{4b}). This research further proposes that higher order responsiveness in developed countries

is normally associated with dirty industries. These high impact organizations are pressurized

by stakeholders (environmental NGO's and community members) to be environmentally

responsive beyond first order requirements. They accede to these demands so as to be able to

ensure the continuity of their licenses to operate (P_5). Figure 7.4 illustrates the theoretical

model developed in this study and Table 7.1 summarizes how this research extends and

reframes the existing theories about drivers of corporate environmentalism.
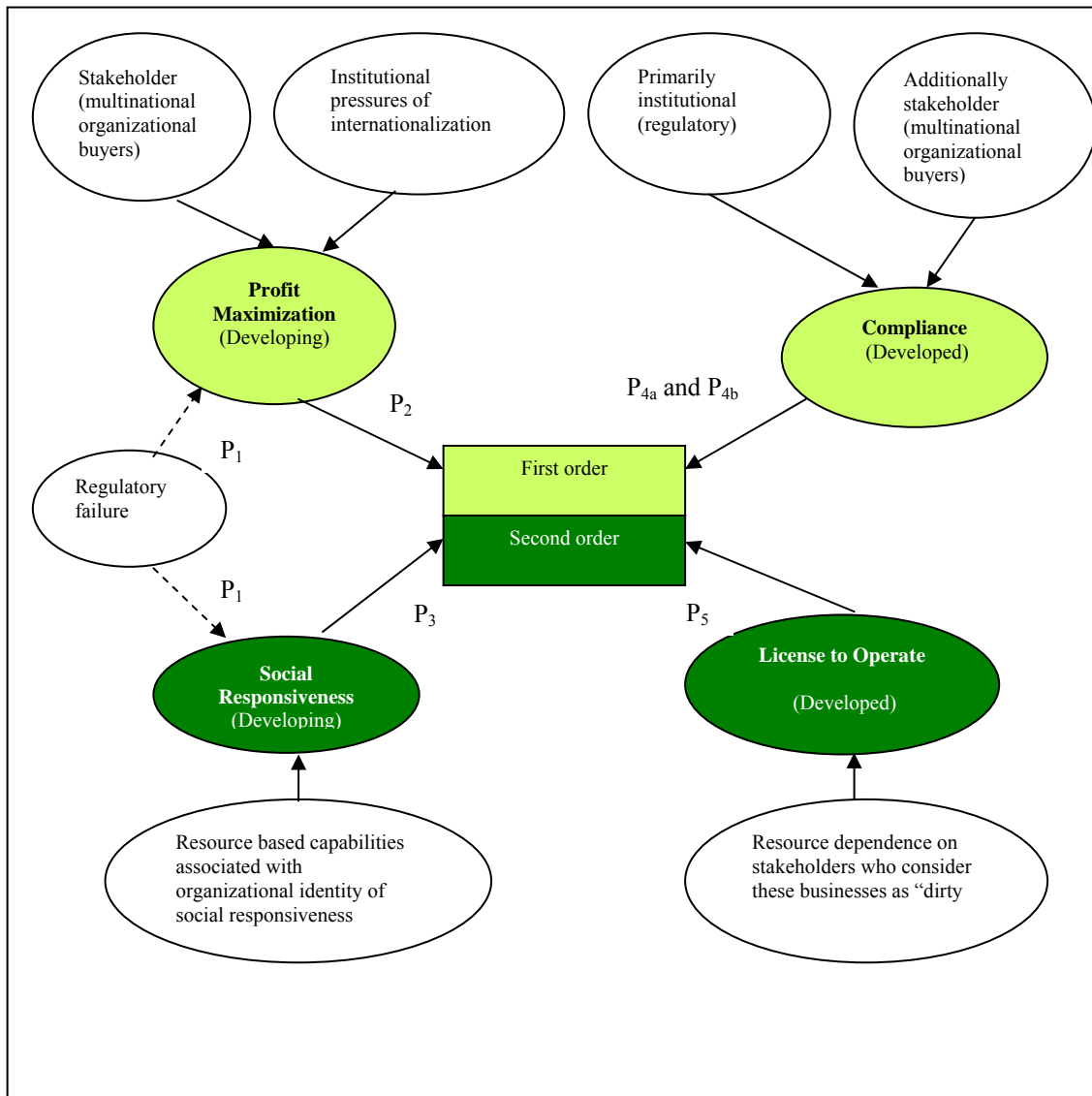
Figure 7.4 Drivers of corporate environmentalism in developed and developing countries

Table 7.1 Alternative view of drivers of corporate environmentalism

	Prevalent view	Viewpoint proposed in this research
Constructs	Corporate environmentalism largely treated as an undifferentiated construct (especially when empirically examining the drivers for corporate environmentalism).	The reality of corporate environmentalism is better reflected when operationalized as first and second order responsiveness.
Theoretical frameworks	Mainly stakeholder. But also institutional, resource based and resource dependence perspectives. However they have been considered in isolation.	Isolated theoretical frameworks are not sufficient to explain perspectives. Combined perspectives from all the four theoretical viewpoints provide a more holistic theoretical framework for an enquiry into the drivers of corporate environmentalism.
Organizations in developing countries	Supply chain pull results in corporate environmentalism in developing countries	Supply chain pressure *and* the broader process of internationalization (setting up manufacturing subsidiaries in developed countries) explains (but only) level one responsiveness
		Second order responsiveness in organizations in developing countries was observed to arise out of a long history of social responsiveness
Organizations in developed countries	Corporate environmentalism assigned to mixed motivations and drivers (regulators, community pressure, environmental activism etc)	Proposes that regulations (and community expectations to comply with regulations) are the primary drivers of first order responsiveness
		Organizations at second order normally have a high environmental impact and are driven by pressure from environmental NGO's and affected communities to go beyond first order requirements or face threats to their license to operate.

This research thus reframes and refines existing conceptualizations about drivers of corporate environmentalism. It therefore has important public policy and managerial implications. One important managerial implication is that it allows managers to identify the level of environmental responsiveness that is appropriate for their organizations. Thus for example this study implies that if managers of organizations in environmentally high impact industries (especially in developed countries) want to avoid confrontations and reputational losses, they should adopt higher order responsiveness.

This study also has important public policy implications. It helps policy makers to identify not only the drivers but also the barriers that prevent organizations from being environmentally responsive. This study thus sends clear signals to the regulatory authorities in developing countries that lack of effective implementation regimes prevents organizations from being environmentally responsive even at the minimum levels (unless there are other motivations). It is thus primarily the rewards promised by internationalization (first order) and the desire for continued moral legitimacy (second order) that drives organizations to be environmentally responsive in developing countries. Thus this promise of mutual blessing (improving the environment and also being rewarded for it; either through greater profits or through continued moral legitimacy) ensures that the larger organizations in developing countries are adopting environmental responsiveness even in the absence of social or regulatory pressures. However for those (numerous) organizations in developing countries that do not meet either of these threshold conditions, the scenario as regards adopting environmental responsiveness is bleak. The policy makers in developing countries seriously need to re-examine the weaknesses in the implementation regime. There are thus lessons to be learnt for policy makers in developing countries especially regarding the effectiveness of fear of penalties and threat of cancellation of the license to operate in driving organizations to be environmentally

responsive. Furthermore in the context of developed countries, the fact that societal expectations demand higher order responsiveness (beyond regulatory requirements) from environmentally high impact industries can be construed as a signal for regulatory authorities to "raise the regulatory bar" for high impact organizations. However it must be pointed out that as noted by Benn and Dunphy (2004) countries with social democratic traditions (such as most European countries) rather than the countries aligned with economic liberal tradition of democracy (such as the USA) provide more favourable conditions for doing so[15]. Finally while this study points to the importance of external drivers in motivating organizations to be environmentally responsive, it does not underestimate the importance of managerial beliefs and commitments. Thus as observed in this study, the absence of external pressures did not prevent organizations in India from adopting higher order responsiveness. This higher order responsiveness was observed to be driven by organizational identities that were rooted in socially responsive values promoted both by the current and the founder leaders. The implications of this value based environmental responsiveness points towards the limited (though important) role that external change acts can play in pushing organizations towards being environmentally responsive. As pointed out by Dunphy et al.(2007) for organizations to move beyond the stages where external drivers can take them the role of enlightened leadership assumes paramount importance.

7.5 Limitations and Directions for Future Research

The first major limitation of this study is that it is based on cases selected from one developing and one developed country. A single country like India or New Zealand cannot be

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[15] As explained by Benn and Dunphy (2004, p 143) *"social democratic traditions advocate a more interventionist and proactive role for the state in protecting the collective interests of the citizens"*. It is thus more likely to contribute to effective legislation.
In contrast *"economic liberal tradition of democracy is ideologically committed to minimal government intervention and so is less likely to take action to protect community interest"* (p, 144). The economic liberalization tradition stresses limiting government regulation and intervention.

representative of all developing and developed countries respectively; however these countries can be viewed as being evocative of the conditions prevailing in developing and developed countries respectively. According to the United Nations Framework Convention on Climate Change (2008) which classifies nations into industrialized (termed as developed in this study) and developing countries, nations in each group share key similarities, such as GHG emissions per capita, ability to adapt to climate change, sources of emissions, etc with the other nations in the same group. Furthermore nations in the same groups also share other factors such as enforcement of environmental regulations, societal involvement with environmental issues etc (Jeswani et al., 2008). Thus while the countries in this study are not representative of all developing and developed countries respectively, they do share underlying similarities with others in the same groups and should thus be seen in light of being indicative of conditions in other developing and developed countries. This limitation does however provide an anchor for future research especially given the fact that "inductive and deductive logics are mirrors of one another" (Eisenhardt & Graebner, 2007, p. 25). Thus this research has developed theory in the form of testable propositions from case study data, and there is an opportunity for future researchers to complete the cycle by using data from different countries to test the theory.

Furthermore because this research sought to generalize the findings to developing and developed countries (as opposed to reporting the drivers in India and New Zealand), this research did not specifically explore the effect that cultural dimensions might have on the drivers of corporate environmentalism. However for researchers interested in the interaction of national cultures (Hofstede, 2001; Hofstede & Hofstede, 2005) with the drivers of corporate environmentalism there exists an opportunity for further research.

Another limitation of this study stems from the fact that although interviews are regarded as a highly efficient way to gather rich empirical data, especially about sensitive issues (Eisenhardt & Graebner, 2007; Yin, 2003), they remain subject to criticism on the grounds of social desirability bias (Podsakoff & Organ, 1986). While it is true that social desirability bias can lead to impression management by image conscious informants (Eisenhardt & Graebner, 2007), there however are reasons to believe that social desirability bias was not a problem in this research. This is so because of two reasons. Firstly assuring respondents of confidentiality has been reported to reduce the risk of social desirability bias (Konrad & Linnehan, 1995). Consequently all the respondents in this study were promised confidentiality as regards both the organizational name and also as regards the name of the manager being interviewed. These dual screens of anonymity did appear to put most respondents at ease as is evident in their responses (for example senior environment directors at board level in India openly admitting that regulations were not an important driver for their organization and similarly senior managers in New Zealand being candid in their observations that top management cared only because of the risks of penalties). Thus the fact that self report in this research did not appear to be biased towards enhancing the corporate image indicates a low degree of social desirability bias. Secondly triangulation of the findings through corroboration by independent panels, verification from secondary sources and where possible through multiple informants, provides further assurance of the low risk of social desirability bias in this study. Nevertheless social desirability bias as a result of self reported data remains a methodological weakness for much of the research examining corporate strategies (Sharma & Vredenburg, 1998). Further studies that empirically examine the theoretical propositions would add confidence in the theory proposed in this study.

APPENDIX 1

List of Secondary Sources used for Case Development

1. Annual reports

2. Sustainability / environmental reports

3. Corporate websites

4. Business publications including brochures and publicity material

5. Power points slides of presentations (regarding environmental issues) made by the respondents

6. Environment policies

7. Copies of environmental manuals

8. Organizational reports regarding new environment friendly product developments

9. Media reports

APPENDIX 2

Interview Schedule

1. What sort of environmental issues does your organization have to deal with?

2. How does your organisation deal with these (environmental) issues?

3. What leads your organisation to address these issues?
   (If not addressed already then further probe)

4. What was the role of environment regulations in influencing your organisation's responses to these issues?

5. How do competitor's actions on environmental issue influence your organisation's actions with respect to these issues?

6. *Are there any other important groups of stakeholders who convinced your organisation to address these issues? (If not addressed probe, role of top management, community etc…)*

7. How has your organisation responded to their concerns?

8. Whose responsibility is it in your organisation to deal with environmental issues?

9. In what ways does your organisation assess the environmental impact of its products?

10. In what ways does your organisation consider the environmental impact of its processes and or services?

Difficulties Related to Data Collection in India

While I have successfully completed data collection in 11 case study organizations in India, I have in the process discovered (though through the hard way!) that the realities of conducting research in a developing country setting are starkly different from those in a developed country. Where my experience of data collection in 12 organizations in New Zealand was largely efficient and close to text book details, my experience of data collection in India was fraught with difficulties. Any success that I had in completing data collection in 11 case study organizations hinged solely on tenacious, persistent and repeated contacts with multiple gatekeepers and managers.

An unfortunate fact is that research handbooks do not normally consider the specific challenges that a researcher might encounter in developing country contexts (Babbie, 2004; Creswell, 1998, 2003; Patton, 1990). Incidentally almost all business schools in India use these same international standard research handbooks which have not been adapted to local conditions. This is despite the fact that the established norms for conducting research in developed countries may not be very successful as a practical guide for conducting research in developing country contexts. My experience of data collection in the Indian organizations allowed me to develop some insights into the unique challenges that a researcher might face, especially when attempting to collect data about sensitive issues such as environmental responsiveness. I have discussed these difficulties in this appendix to both explain some of the limitations of my research and also in the hope that future researchers can benefit from my experience.

The major problem that I faced while collecting data in India was primarily related to access. Access pertains to being able to contact both suitable gatekeepers so as to be able to identify suitable respondents in organizations and then once such respondents had been identified, trying to contact them. However before being able to contact suitable respondents, the first logical step was identifying suitable organizations. While this was not problematic in itself, I have discussed the process below because it deviates from the standard practices in developed country context.

1. Identifying Suitable Organizations

Before being able to identify suitable respondents, I had to identify suitable organizations. Due to non availability of established databases (such as the Toxic Release Inventory, Kompass or the COMPUSTAT), the websites of the organizations were chosen as starting point. The reason for this was that the websites provided the only available starting point for constructing a database of environmentally responsive organizations based on publicly available information.

Accordingly the first screening criterion for the selection of suitable organizations was the existence of references to environmental responsibility on an organization's website either in a distinct section or as a part of the annual report and/or an environment/sustainability report. Further evidence of environmental responsibility was determined through existence of environmental management measures such as ISO 14001 certification, corporate environment policy, environmental reporting and environmental auditing. The environmental credentials of the organizations were also inferred from environmental awards and media reports. This detailed process brought home the fact that there were not many organizations in India that

were concerned about the natural environment. This insight is supported by Ruud (2002) and Stulligross (1999).

2. Identifying and Contacting Suitable Respondents

After identifying suitable organizations the next step was to identify suitable respondents in the organizations. The established procedures recommend that after identifying a suitable organization a letter, *o*r an email *or* a fax *or* a phone call to the organization would assist in identifying suitable respondents (Creswell, 1998, 2003). I therefore expected that after identifying suitable organizations and establishing contact with the appropriate respondents, subsequent meetings on a mutually agreed date would complete the interviews. Follow up discussions could then take place through email and phone calls. This procedure worked remarkably close to text book details for the organizations that I interviewed in New Zealand. I completed the first five interviews in New Zealand in the four weeks set aside for the task.

However access was extremely challenging in the Indian organizations. In my original plan I had set aside four weeks for the initial pilot interviews. However it took me nearly six months to successfully complete the first five interviews in India and an additional eight months to complete the remaining six. In India even multiple and repeated combinations of letters, emails, faxes and telephones calls were no guarantee of success in securing a suitable respondent for an interview. The path to a successful interview in India, I gradually realized was arduous and labyrinthine.

The first problem was that while some of the Indian organizations had detailed references to environment responsibility on their websites, it was extremely difficult to identify the appropriate person (the manager responsible for environmental or related issues) with whom

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an interview could be conducted. This was in contrast to the New Zealand organizations where the website mostly had details of the manager responsible for environment/ sustainability issues. Furthermore in New Zealand if the details were not on the website, a simple phone call or emails to the contacts listed on the website would yield the name of the appropriate person. In a couple of cases in New Zealand, request to top board level directors to nominate a suitable person for an interview were also promptly responded to. Though there were cases in New Zealand, where mutually convenient times could not be arrived at and the organizations had to be replaced but on the whole the process was remarkably efficient.

In India however the first point of contact, the telephone number available on the websites, invariably (and totally unlike my experience in New Zealand) yielded no further contacts. Perhaps because these were large multi-division organizations (who on an average employed more than 20,000 people and had revenue ranging from US $ 400 million to US $ 30, 000 million), the distance that needed to be traversed starting from the person at the reception desk to the senior managers was significant in psychological terms. The people at the reception desk wanted a name and a confirmed appointment before they could (or would) put me through. The websites in almost all the cases did not specify the names or contacts of the managers who might be responsible for environment or related areas (health and safety, sustainability etc). Requests for information at the email addresses provided at the "contact us" sections on the websites did not yield a reply or a contact even after multiple tries. Generally there were two categories of "names" on the websites. The first category of names on the websites were of the top most managers (the CEO, board of directors, presidents etc). The names in this category constituted an exclusive group of elite and influential leaders in the Indian industries. While they could have nominated an appropriate person access to them however was severely restricted and protected by multiple gatekeepers. Complicating the

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matters was the fact that to contact them I needed the names of the gatekeepers as a starting point. This strategy of identifying informants through senior most managers worked only in one case in India. In this specific case, the personal assistant of the CEO, replied asking for more details of the research and subsequently put me in contact with the Vice President, responsible for environmental affairs. In this particular organization I also requested and got a subsequent interview with the CEO. The reason why the CEO could be accessed and tapped for suitable informants in this case can perhaps be attributed to the fact that this particular organization was one of the smallest in terms of revenue (US$ 456 million compared to US$ 30 billion of the top Indian organization in the sample) and also in the number of employees (4500 in this organization as compared to 100, 000 in the one with the largest number of employees in the sample). Moreover the CEO in this particular organization had a deep and an abiding concern for environmental issues. However this strategy did not yield any results for more than 69 other organizations in India that I contacted.

The second category of contact people whose details were available on some of the websites of the organizations in India were designated as the corporate communication directors. Organizations where such a contact could not be found or where the available contacts did not respond even after repeated attempts had to be dropped. But the organizations which profiled the corporate communication director or related managers provided the much needed "name". Access to a name allowed me to start the process. I could now legitimately explain my purpose and request the receptionists at the front desk to put me through to a specific person. However it was only after repeated combinations of faxes, emails and phone calls that I would succeed in getting actual access to the corporate communications director. They would have received the faxes and the emails but as extremely busy managers they were extensively touring and had other pressing business engagements, which as they explained had lead to

delay in replying. Though establishing contact with them was difficult, it at least allowed me to have a foot in the door. In a majority of the cases they expressed willingness to help identify an appropriate person. But the process would stretch to weeks (and months). Once again multiple emails and phone calls and repeated contacts, were used as reminder tactics. In some cases the end result would be the successful identification of a manager responsible for environmental issues. In others cases I had to give up contacting after success did not seem probable even after multiple combinations of tactics.

After I had succeeded in identifying the manager responsible for environmental affairs the whole process would start again…the introductory letter, the faxes, the emails, the phone calls. On an average it took me more than 30 contacts through repeated contacts to get one completed interview. Scheduled interviews would often be cancelled, due to sudden meetings at headquarters, the urgent need to travel, or personal reasons. Some organizations had to be dropped at this last stage when the manager in charge of environmental affairs proved very difficult to contact even after many attempts. To have to give up on a contact at this stage was a very disappointing experience.

I have not addressed the problems associated with trying to contact multiple informants in this section firstly because they were not idiosyncratic to organizations in India (though certainly more pronounced) and secondly I have already touched upon them in Chapter 5. To summarize the experience, interviews in the Indian organizations were extremely difficult to secure. In India even subsequent contacts after the interviews to gain further clarifications were difficult. One example of this experience is that a year after completing all the interviews I emailed some of the respondents both In India and New Zealand (in cases where the details were not available on websites) to clarify the number of employees in the

organization. In two cases I received replies from New Zealand managers immediately after clicking the send button. And the other replies from New Zealand trickled in after a week. Only two respondents in New Zealand did not reply, and a phone call to the corporate office in both cases yielded the information. However during the time of this writing I am still waiting for a reply from all the managers in the Indian organizations that I needed the information from.

In an effort to understand the reasons behind the difficulties in securing interviews even with some of the best known and professionally run organizations in India (two of the organizations in my sample were Fortune 500 companies), I contacted five experts. All these experts were at very senior levels in their professions. The first of these experts was a consultant in India. He had more than thirty years of experience as a consultant, as a director on board of a number of organizations and as a very senior level manager. Of the other experts, three were senior academicians at the Indian Institute of Management (Bangalore), a top business school in India and one was a Professor Emeritus at Punjabi University (see Table A3). These academicians regularly conducted executive development programs and were actively engaged in consultancy services with the Indian businesses.

Table A3 Details of experts contacted in India

	Experience
Expert 1	Consultant to Indian organizations with more than 30 years experience
Expert 2	Indian academician at Indian Institute of Management, Bangalore
Expert 3	Indian academician at Indian Institute of Management, Bangalore
Expert 4	Indian academician at Indian Institute of Management, Bangalore
Expert 5	Professor emeritus at an Punjabi University, Patiala

Discussions with these experts revealed that, the industry- academia partnership in India was not at the same level of maturity as in the developed countries. All three academic experts

from Indian Institute of Management (Bangalore) had their PhD from North America and had

on average 10 years of teaching and research experience in North America. They explained

that while it was an institutionalized practice in the developed countries for industries to both

assist with and benefit from research; it was not the case in India. Because the Indian

industry's partnership with academia was weak, the managers did not attach much

significance to research efforts. One consequence of this was that the response rates to

research efforts were very low.

They further explained that my experience was not unique and that it normally is very

difficult to be able to get managers to respond to research efforts. The experts suggested that

some innovative ways out of this problem were relying on alumni networks to gain access to

organizations and the use of techniques such as *"captive respondents"*. The expert suggestion

of using alumni networks especially from premier business schools in India proved useful and

helped me gain access to respondents in two of the most widely acclaimed environmentally

responsive organizations in India. The "*captive respondents"* technique involves requesting

managers who come to attend specific executive development programmes (EDP) to fill out

research questionnaires or fix times during the course of such programmes for subsequent

interviews. At the time the data for this research was collected none of the top business

schools (where practising mangers prefer to attend executive development programmes) were

conducting executive programs aimed at environmental/ corporate social responsibility

managers. Thus even though using captive respondents did not have work for this research, it

might prove to be a useful technique for future researchers attempting to collect data in India.

Summarizing this appendix, the process of collecting data in India, a developing country in

my experience is very different from collecting data in New Zealand. The reasons may be

explained by institutionalized practices relating to attitude towards research efforts. In most developed countries there is a two way flow of information between academia and industry. However such a framework is lacking in India. Consequently industry tends not to support most research efforts. However as discussed in the appendix there are ways of overcoming this impasse and it is hoped that future researchers can benefit from this discussion.

APPENDIX 4

Box A4 Example of difference in quality of responses obtained through written answers to an open ended structured questionnaire as compared with the response obtained through in-depth interviews, in two organizations in India.

Written response (Mayer Systems)

Q-4 What was the role of environmental regulations in influencing your organizations responses to these issues?

Ans:-4 The most important aspect of Environmental Management System is to comply with Legislative Requirements. As has been listed (Refer Ans-1) compliance to all the acts and rules are assessed by Government authorities in the form Visits/ Communications on important issues like, consent to establish and operate on Air and Water act and renewal of those. Authorization in regard to compliance of Environmental Protection act and corresponding rules like manufacturing, handling, storage and Import of hazardous chemicals and disposal of hazardous Wastes, Public liability Insurance acts, Petroleum acts, and Motor Vehicle acts, Indian Electricity acts etc. Under the Ministry of Environment Forests (MoEF) and State Dept of Environment, CPCB (Central Pollution Control Board) and SPCB (State Pollution Control Board) respectively carry out visits/audits for addressing issues.

All the applicable Laws of the land: The Water (Prevention and Control of Pollution Act, 1974, amendments, The Water Cess Act, 1977, amendments, 2003, The Air (Prevention & Control of Pollution) Act, 1981, amendments, The Environment (Protection) Act, 1986, amendments, Notification on Environment Clearance, 1994, amendments, The Hazardous Wastes (Management and Handling) Rules, 1989, Amendments 1, 2000, 2003, The Hazardous Chemicals (Manufacture, Storage & Import) Rules 1989 & Amendments 1 1994, 2000, The Public Liability Insurance Act, 1991, Rules, 1992, Ozone Depleting Substances (R & C) Rules, 2000, Batteries (Management & Handling) Rules, 2001, Noise Pollution (Regulation & Control) Rules, 2000, The Water (Prevention and Control of Pollution) Act, 1974, amendment, Occupational Health and Safety related legislation viz. Factory's act, Petroleum Act, Motor Vehicle Act & Rules, Explosives Act, gas Cylinder Rules, Static and Mobile Pressure Vessels Rules, Indian Electricity Act etc

Response through depth interviews (e.g. Organochem)

Question: So what would you say about the role of regulations in influencing environmental responsiveness in India?

Arvind: **(Laughs)** I would say, I would rather quote from one of our very well known environmental lawyer He had said that, I quote "India is probably the most enacted but least acted upon countries". This he said about five or seven years back.
(Laughs again) Implementation!

Response through depth interviews (e.g. ICLL)

Question: And what about regulations?

Subhash: In India- **(laughs)** I would not like to be recorded on this, but okay there is regulation which does help. It gives you a basic premise to base yourself on. Right. You have the basic minimum that must be achieved, that must be done. But one would say one is it is known in India that this can be managed. This means that you can manage the regulations.

Box A5 Example of difference in quality of responses obtained through written answers to an open ended structured questionnaire as compared with the response obtained through in-depth interviews, in two New Zealand organizations.

Written response (Phoenix)

Question: What was the role of environment regulations in influencing your organisation's responses to these issues?

Answer: Phoenix Energy actively participates in the development and review of environmental legislation both at a national, regional and local level to minimise the risks to the company. Through an environmental monthly report, changes to environmental legislation, policies and strategies that could have an impact on Phoenix Energy's operations are monitored and reported on.
The Resource Management Act (RMA) imposes a duty on Phoenix Energy to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on by or on behalf of Phoenix Energy.
Phoenix Energy is committed to achieving excellence in all our environmental practices and to ensuring that environmental and social awareness are the cornerstones of our business. Achieving full regulatory compliance is considered the minimum standard that Phoenix Energy must strive to achieve in the operation of its business.
Phoenix Energy works hard to maintain its sound record of environmental compliance and positive reputation via the following strategies:
Event monitoring and management.
Effective quality and environmental management systems
Regular auditing of systems and compliance.
Training of staff and contractors
Early detection systems
Design changes (to contain any leak or spill)
Equipment maintenance
Emergency response procedures
Resource Consents Management database.
Effective and trusted communication with stakeholders and the community.
Consistent application of Phoenix's environmental values.

Procedures have been developed to ensure that Phoenix Energy holds the necessary consents for its activities and that these consents are managed accordingly...

Response through depth interviews (Marion)

Question: So what about the role of regulations?

Anthony: Well! Regulation's one factor but I suspect that the media impact would be almost as significant in some ways as the fine you get from a prosecution because most people can't see the fine but if you have your company associated with T.V cameras and dying ducks and oil in waterways – Oh! That's a big no no... That actually can damage your company's image. We are trying to maintain an image of a company that is responsible.

As the above examples indicate the responses that I was obtaining through in-depth interviews with managers appeared to be richer and more meaningful as compared to the staccato and reserved written responses from managers in the organizations who had provided written responses. To probe this issue further I requested in-depth interviews with the four managers who had provided the written responses. Managers in two of the organizations (Mayer Systems in India and Fabio in New Zealand) agreed to be interviewed in person. The responses they provided in these depth interviews were starkly different from what they had given in writing. Examples of these differences are presented in appendix six.

Striking differences in the quality of responses were observed not only between different organizations (as illustrated in Boxes A4 and A5) but more importantly these differences were also found between the responses of the same managers to the same questions depending on whether they treated the questions as open ended structured questionnaires or whether the answers were produced through in depth interviews. I have reproduced two of the extracts to illustrate the difference (see Box A 6.1 for the Indian organization and Box A 6.2 for the New Zealand organization). These responses illustrate answers to the same question by the same managers albeit through two different processes. The first response is a written response (wherein the interview schedule was treated as an open ended structured questionnaire). The second response comes from in-depth discussions.

The richness and the closer to truth quality of the responses offered through in depth interviews in this research as compared with the "technically correct" and reserved written responses, lends support to the argument that the managers interviewed were not engaging in sense making and providing unreliable answers during the depth interviews. Had the managers been indulging in deliberate impression management during the interviews, these differences would not have been existed and certainly not as vividly.

Box A 6.1 Difference in content of written versus in depth response (Indian organization)

Written response to question 3 in Indian organization (Mayer Systems):

Question: What leads your organization to address environmental issues?

Answer 3: We, at Mayer systems India Limited, have grown up in a phenomenal rate over past few years of time. Needless to say that as a responsible corporate citizen it is our duty and responsibility to have following things ensured;

Vision, mission and values need to be based on good business principles to provide strong foundation of corporate governance.

Capture and address voice of all the stakeholders (namely; Customers Employees, Society, Suppliers and Shareholders) and other interested parties for long-term sustainability. In regard to Economic Sustainability, we are well ahead of our Targets and are steady but along with this Environmental and social Responsibility are important strategic drivers for long term sustainable development.

Response to same issue in depth interview

Question: So what leads your organization to adopt environmentally responsive practices?

Amit Rao: If you see… our customers, they are from Japan and Europe, they want their suppliers like us to be …. aaaa… what I can say is their environmental laws and other laws, we must follow. That is number one.

Number two is the hazardous substances and heavy materials should not be part of…We are, you see also part of Sony's green partner because they have certified us.
So whatever product we are producing and the raw material we are using falling in line as a part of their product environmental management system audit.

In European countries there is requirement of good packaging material. It requires a certificate of materiel from the governments of these respective countries so earlier we were using Methyl Bromide for the fumigation of the wooden packaging material but now we have switched over to heat treatment of wooden pellets and completely eliminating the use of Methyl Bromide.

Moreover Sony, Japan and another customer they go for the green partner certificate as well as green purchase. In green purchase it is for fully organic substances in which they do not allow substances which are banned, like lead, cadmium and chromium.

So to satisfy the norms of our customers we also take lead in protection of ecology and our environment.

Box A 6.2 Difference in content of written versus in depth response (New Zealand organization)

Written response to question 3 in New Zealand organization: (Fabio)

Question: What leads your organisation to address these issues?

Answer: At Fabio we are committed to minimising the negative environmental impacts of their business activities. As well as complying with all legislative and regulatory requirements, there is an organisation-wide focus on energy efficiency and waste reduction which begins at head office and runs through the warehousing and transport operations to the level retail end of the business. We are bounded by the Resource Management Act 1991, the Building Act 199. Fabio is committed to the obligations of the Kyoto Protocol.

Response to same issue in depth interview

Question: What propels your organization to be environmentally responsible?

Sharon: Well! The biggest driver would be regulation but it is also good marketing for us.

REFERENCES

3M. (2007). Pollution prevention pays. Retrieved June 7 2007, from http://solutions.3m.com/wps/portal/3M/en_US/global/sustainability/s/governance-systems/management-systems/pollution-prevention-pays/

Aaker, D. A., Kumar, V., & Day, G. S. (2004). *Marketing research* (8 ed.). New York: John Wiley & Sons, Inc.

Agle, B. R., Mitchell, R. K., & Sonnenfeld, J. A. (1999). Who matters to CEO's? An investigation of stakeholder attributes and salience, corporate performance and CEO values. *Academy of Management Journal, 42*(5), 507-525.

Agle, B. R., Nagarajan, N. J., Sonnenfeld, J. A., & Srinivasan, D. (2006). Does CEO charisma matter? An empirical analysis of the relationship among organizational performance, environmental uncertainty, and top management team perceptions of CEO charisma. *Academy of Management Journal, 49*(1), 161-174.

Ajzen, I. (1991). The theory of planned behavior. *Organization Behavior and Human Decision Processes, 50*(2), 179-211.

Albert, S., Ashforth, B. E., & Dutton, J. E. (2000). Organizational identity and identification: Charting new waters and building new bridges. *Academy of Management Review, 25*(1), 13-17.

Andersson, L. M., & Bateman, T. S. (2000). Individual environmental initiative: Championing natural environmental issues in U.S. business organizations. *Academy of Management Journal, 43*(4), 548-570.

Aragon-Correa, J. A. (1998). Strategic proactivity and firm approach to the natural environment. *Academy of Management Journal, 41*(5), 556-567.

Arora, S., & Cason, T. N. (1995). An experiment in voluntary environmental regulation: participation in EPA's 33/50 program. *Journal of Environmental Economics and Management, 28*(3), 271-286.

Atkinson, S., Schaefer, A., & Viney, H. (2000). Organizational structure and effective environmental management. *Business Strategy and the Environment, 9*(2), 108-121.

Babbie, E. R. (2004). *The practice of social research* (10th ed.). Belmont, CA: Thomson/Wadsworth.

Banerjee, S. B. (2002). Corporate environmentalism: The construct and its measurement. *Journal of Business Research, 55*(3), 177-191.

Banerjee, S. B., Iyer, E. S., & Kashyap, R. K. (2003). Corporate environmentalism: Antecedents and influence of industry type. *Journal of Marketing, 67*(2), 106-122.

Bansal, P. (2005). Evolving sustainably: A longitudinal study of corporate sustainable development. *Strategic Management Journal, 26*(3), 197-218.

Bansal, P., & Clelland, I. (2004). Talking Trash: Legitimacy, impression management, and unsystematic risk in the context of the natural environment. *Academy of Management Journal, 47*(1), 93-103.

Bansal, P., & Hunter, T. (2003). Strategic explanations for the early adoption of ISO 14001. *Journal of Business Ethics, 46*(3), 289-299.

Bansal, P., & Kistruck, G. (2006). Seeing is (not) believing: Managing the impressions of the firm's commitment to the natural environment. *Journal of Business Ethics, 67*(2), 165-180.

Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. *Academy of Management Journal, 43*(4), 717-736.

Barley, S. R. (2006). When I write my masterpiece: Thoughts on what makes a paper interesting. *Academy of Management Journal, 49*(1), 16-20.

Barnard, C. I. (1938). *The functions of the executive*. Cambridge, Massachusetts: Harvard University Press.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99-120.

Barney, J. (2001). Is the resource based "view" a useful perspective for strategic management research? Yes. *Academy of Management Review, 26*(1), 41-56.

Bartunek, J. M., Rynes, S. L., & Ireland, R. D. (2006). What makes management research interesting and why does it matter? *Academy of Management Journal, 49*(1), 9-15.

Basu, K., & Palazzo, G. (2008). Corporate social responsibility: A process model of sensemaking. *Academy of Management Review, 33*(1), 122-136.

Benn, S., & Dunphy, D. (2004). Can democracy handle corporate sustainability? Constructing a path forward. *Innovation: Management, Policy and Practice, 6*(2), 141-155.

Benn, S., & Dunphy, D. (2005). Towards new forms of governance for issues of sustainability: Renewing relationships between corporates, governments and community. *Electronic Journal of Radical Organization Theory, 9*(1), 1-29.

Benn, S., Dunphy, D., & Griffiths, A. (2004). Corporate change for sustainability: The way ahead. *The Tela Papers, 12*, 1-37.

Benn, S., Dunphy, D., & Griffiths, A. (2006). Enabling change for corporate sustainability: An integrated perspective. *Australasian Journal of Environmental Management, 13*(3), 156-165.

Berman, S. L., Wicks, A. C., Kotha, S., & Jones, T. M. (1999). Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Academy of Management Journal, 42*(5), 488-506.

Berry, M. A., & Rondinelli, D. A. (1998). Proactive corporate environmental management: A new industrial revolution. *Academy of Management Executive, 12*(2), 38-50.

Bhattacharya, C. B., & Sen, S. (2004). Doing better at doing good: When, why and how consumers respond to corporate social initiatives. *California Management Review, 47*(1), 9-24.

Blum-Kusterer, M., & Hussain, S. S. (2001). Innovation and corporate sustainability: An investigation into the process of change in the pharmaceuticals industry. *Business Strategy and the Environment, 10*(5), 300-316.

Bongaarts, J. (2002). Population: Ignoring its impact. *Scientific American, 286*(1), 67-69.

Bono, J. E., & Judge, T. A. (2003). Self-concordance at work: Towards understanding the motivational effects of transformational leaders. *Academy of Management Journal, 46*(5), 554-571.

Bowen, F. (2000). Environmental visibility: A trigger of green organizational response? *Business Strategy and the Environment, 9*(2), 92-107.

Bowen, F., & Sharma, S. (2005). *Resourcing corporate environmental strategy: Behavioral and resource-based perspectives*. Paper presented at the 65'th Academy of Management Conference.

Brickson, S. L. (2007). Organizational identity orientation: The genesis of the role of the firm and distinct forms of social value. *Academy of Management Review, 32*(3), 864-888.

Brown, S. L., & Eisenhardt, K. M. (1997). The art of continuous change: linking complexity theory and time paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly, 42*(1), 1-34.

Bureau of Metrology. (2007). UV radiation the invisible killer. Retrieved May 7, 2007, from http://www.bom.gov.au/info/about-uv.shtml#radiation

Cairncross, F. (1994). The challenge of going green. *Harvard Business Review, 72*(4), 40-41.

Cairncross, F. (1995). *Green, Inc: guide to business and the environment*. London: Earthscan.

Carroll, A. B. (1979). A three dimensional conceptual model of corporate performance. *Academy of Management Review, 4*(4), 497-505.

Carson, R. (1962). *Silent spring*. London [England]: Hamish Hamilton.

Castleman, B. I. (1987). Workplace health standards and multinational corporations. In C. S. Pearson (Ed.), *Multinational corporations, environment and the third world: Business matters*. Durham: Duke University Press.

Christmann, P. (2000). Effects of "best practices" of environmental management on cost advantage: The role of complementary assets. *Academy of Management Journal, 43*(4), 663-680.

Christmann, P. (2004). Multinational companies and the natural environment: Determinants of global environmental policy standardization. *Academy of Management Journal, 47*(5), 747-760.

Christmann, P., & Taylor, G. (2001). Globalization and the environment: Determinants of firm self regulation in China. *Journal of International Business Studies, 32*(3), 439-458.

Christmann, P., & Taylor, G. (2002). Globalization and the environment: Strategies for international voluntary environmental initiatives. *Academy of Management Executive, 16*(3), 121-135.

Christmann, P., & Taylor, G. (2006). Firm self regulation through international certifiable standards: Determinants of symbolic versus substantive implementation. *Journal of International Business Studies, 37*(6), 863-878.

Clarke, R. A. (1994). The challenge of going green. *Harvard Business Review, 72*(4), 37-38.

Clarkson, M. B. E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review, 20*(1), 92-117.

Club of Rome. (1972). *The Limits to growth: A report for the Club of Rome's project on the predicament of mankind*. New York,: Universe Books.

Colaizzi, P. F. (1978). Psychological research as the phenomenologist views it. In R.Vaile & M.King (Eds.), *Existential phenomenological alternatives for psychology* (pp. 48-71). New York: Oxford University Press.

Collins, E., Corner, P., Kearins, K., & Lawrence, S. (2004). Getting serious about voluntary environmental programmes. *University of Auckland Business Review, 6*(2), 57-65.

Collins, E., Kearins, K., & Roper, J. (2005). The risks in relying on stakeholder engagement for the achievement of sustainability. *Electronic Journal of Radical Organization Theory, 9*(1), 1-19.

Collins, E., Lawrence, S., Pavlovich, K., & Ryan, C. (2007). Business networks and the uptake of sustainability practices: The case of New Zealand. *Journal of Cleaner Production, 15*(8-9), 729-740.

Collins, E., Lawrence, S., & Roper, J. (2007). *Sustainability practices of New Zealand businesses in 2006*: Waikato Management School, University of Waikato.

Collis, D. J., & Montgomery, C. A. (1995). Competing on resources: Strategy in the 1990s. *Harvard Business Review, 73*(4), 118-128.

Commoner, B. (1971). *The closing circle: Nature, man and technology*. New York: Alfred A. Knopf.

Conner, K. R. (1991). A historical comparison of resource based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm. *Journal of Management, 17*(1), 121-154.

Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of U.S. environmental managers: Applying Ajzen's theory of planned behaviour. *Academy of Management Journal, 43*(4), 627-641.

Court, T. (1990). *Beyond Brundtland: Green development in the 1990s*. New York London ; Atlantic Highlands, N.J., USA: New Horizons Press ;Zed Books.

Cramer, J. (2005). Company learning about corporate social responsibility. *Business Strategy and the Environment, 14*(4), 255-266.

Creswell, J. W. (1998). *Qualitative enquiry: Choosing among five traditions*. California: Sage Publication.

Creswell, J. W. (2003). *Research design, qualitative, quantitative and mixed methods approaches* (2 ed.). California: Sage Publications.

Cummings, L. S. (2008). Managerial attitudes toward environmental management within Australia, the People's Republic of China and Indonessia. *Business Strategy and the Environment, 18*(1), 16-29.

Daly, H. E. (1991). *Steady-state economics* (2nd ed.). Washington, D.C.: Island Press.

Danish Committee on Scientific Dishonesty (UVVU). (2004). Decision regarding complaints against Bjorn Lomborg. Retrieved May 5, from http://www.forsk.dk/uvvu/nyt/udtaldebat/bl_decision.htm

Darnall, N., & Edwards, D. (2006). Predicting the cost of environmental management system adoption: The role of capabilities, resources and ownership structure. *Strategic Management Journal, 27*(4), 301-320.

Darnall, N., Henriques, I., & Sadorsky, P. (2006). *Adopting proactive environmental practices: the influence of stakeholders and organizational size.* Paper presented at the sixty fourth meeting of the academy of management, Atlanta, GA.

Darnall, N., Jolley, G. J., & Handfield, R. (2008). Environmental management systems and green supply chain management: Complements for sustainability? *Business Strategy and the Environment, 18*(1), 30-45.

Dasgupta, S., Huq, M., & Wheeler, D. (1997). Bending the rules: Discretionary pollution control in China. *World Bank, Policy research working paper*(1761), 1-25.

Dasgupta, S., Mody, A., Roy, S., & Wheeler, D. (1995). Environmental regulation and development. *The World Bank Policy Research Department, Working paper series 1448*.

Dean, T. J., & Brown, R. L. (1995). Pollution regulation as a barrier to new firm entry: Initial evidence and implications for future research. *Academy of Management Journal, 38*(1), 288-303.

Delmas, M., & Toffel, M. W. (2004). Stakeholders and environmental management practices: an institutional framework. *Business Strategy and the Environment, 13*(4), 209-222.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (1994). *Handbook of qualitative research*. Thousand Oaks: Sage Publications.

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005). *The sage handbook of qualitative research* (3 ed.). Thousand Oaks: Sage Publications.

Devall, B., & Sessions, G. (1985). *Deep Ecology*. Salt Lake City: Gibbs Smith.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*(2), 147-160.

Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence and implications. *Academy of Management Review, 20*(1), 65-91.

D'Souza, C., & Peretiatko, R. (2002). The nexus between industrialization and environment: A case study of Indian enterprises. *Environmental Management and Health, 13*(1), 80-97.

Dunphy, D., Griffiths, A., & Benn, S. (2007). *Organizational change for corporate sustainability* (2 ed.). London: Routledge.

Dutton, J. E., & Dukerich, J. M. (1991). Keeping an eye on the mirror: Image and identity in organizational adaptation. *Academy of Management Journal, 34*(3), 517-554.

Dutton, J. E., & Dukerich, J. M. (2006). The relational foundation of research: An underappreciated dimension of interesting research. *Academy of Management Journal, 49*(1), 21-26.

Easterbrook, G. (1995). *A moment on Earth: The coming age of environmental optimism*. New York: Penguin Books.

Eckersley, R. (2002). Bjorn Lomborg's, "The Skeptical Environmentalist", a sociocultural perspective. *Global Change & Human Health, 3*(1), 55-57.

Eesley, C., & Lenox, M. J. (2006). Firm response to secondary stakeholder action. *Strategic Management Journal, 27*(8), 765-781.

Egri, C. P., & Herman, S. (2000). Leadership in the North American environmental sector: values, leadership styles and contexts of environmental leaders and their organizations. *Academy of Management Journal, 43*(4), 571-604.

Ehrlich, P. R. (1968). *Population bomb*. New York: Ballantine Books.

Ehrlich, P. R., & Ehrlich, A. H. (1970). *Population resources environment: Issues in human ecology*. San Francisco: W. H. Freeman and Company.

Ehrlich, P. R., & Ehrlich, A. H. (2004). *One with Nineveh : Politics, consumption, and the human future*. Washington, D. C.: Island Press : Shearwater Books.

Eisenhardt, K. M. (1989a). Building theories from case study research. *Academy of Management Review, 14*(4), 532-550.

Eisenhardt, K. M. (1989b). Making fast strategic decisions in high velocity environments. *Academy of Management Journal, 32*(3), 543-576.

Eisenhardt, K. M. (1991). Better stories and better constructs: the case for rigor and comparative logic. *Academy of Management Review, 16*(3), 620-627.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: opportunities and challenges. *Academy of Management Journal, 50*(1), 25-32.

Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business*. Oxford [England]: Capstone.

Elkington, J., & Hailes, J. (1988). *The green consumer guide*. London: Gollancz.

Elsbach, K. D., & Kramer, R. M. (2003). Assessing creativity in Hollywood pitch meetings: Evidence for a dual-process model of creativity judgements. *Academy of Management Journal, 46*(3), 283-301.

Environment Protection Act, India (1986), Retrieved July 23 2008 from http://envfor.nic.in/legis/legis.html

Esty, D. C. (1994). The challenge of going green. *Harvard Business Review, 72*(4), 41-42.

Ferlie, E., Fitzgerald, L., Wood, M., & Hawkins, C. (2005). The nonspread of innovations: The mediating role of professionals. *Academy of Management Journal, 48*(1), 117-134.

Frederick, W. C. (1978). From CSR 1 to CSR 2: The maturing of business-and-society thought. *Working Paper 279 Graduate School of Business, University of Pittsburgh*.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. London: Pitman Books Limited.

Freeman, R. E. (1994). The politics of stakeholder theory: some future directions. *Business Ethics Quarterly, 4*(4), 409-421.

Freeman, R. E. (1999). Divergent stakeholder theory. *Academy of Management Review, 24*(2), 233-236.

Freeman, R. E., & Evan, W. M. (1990). Corporate governance: A stakeholder interpretation. *The Journal of Behavioral Economics, 19*(4), 337-359.

Freeman, R. E., & Reed, D. L. (1983). Stockholders and stakeholders: A new perspective on corporate governance. *California Management Review, 25*(3), 88-106.

Frijns, J., Phuong, P. T., & Mol, A. P. J. (2000). Ecological modernisation theory and industrialising economies: The case study of Viet Nam. *Environmental Politics, 9*(1), 257-292.

Frooman, J. (1999). Stakeholder influence strategies. *Academy of Management Review, 24*(2), 191-205.

Galaskiewicz, J. (1997). An urban grants economy revisited: Corporate charitable contributions in the Twin Cities, 1979-81, 1987-89. *Administrative Science Quarterly, 42*(3), 445-471.

Galunic, D. C., & Eisenhardt, K. M. (1996). The evolution of intacorporate domains: Divisional charter losses in high technology multidivision corporations. *Organization Science, 7*(3), 255-282.

Galunic, D. C., & Eisenhardt, K. M. (2001). Architectural innovation and modular corporate forms. *Academy of Management Journal, 44*(6), 1229-1249.

Gardberg, N. A., & Fombrun, C. J. (2006). Corporate citizenship: Creating intangible assets across institutional environments. *Academy of Management Review, 31*(2), 329-346.

Gephart, R. P. (2004). From the Editors: Qualitative research and the Academy of Management Journal. *Academy of Management Journal, 47*(4), 454-462.

Gersick, C. J. G. (1988). Time and transition in work teams: Towards a new model of group development. *Academy of Management Journal, 31*(1), 9-41.

Gilbert, C. G. (2005). Unbundling the structure of inertia: Resource versus routine rigidity. *Academy of Management Journal, 48*(5), 741-763.

Gioia, D. A., & Pitre, E. (1990). Multiparadigm perspective on theory building. *Academy of Management Review, 15*(4), 584-602.

Gladwin, T. N. (1987a). A case study of the Bhopal tragedy. In C. S. Pearson (Ed.), *Multinational corporations, environment and the third world: Business matters*. Durham: Duke University Press.

Gladwin, T. N. (1987b). Environment, development, and multinational enterprise. In C. S. pearson (Ed.), *Multinational corporations, environment and the third world: Business matters*. Durham: Duke University Press.

Gladwin, T. N., Kennelly, J. J., & Krause, T. S. (1995). Shifting paradigms for sustainable development: implications for management theory and research. *Academy of Management Review, 20*(4), 874-908.

Gleick, P. H. (2003). Where's Waldo? A review of The Skeptical Environmentalist. Retrieved May 8, 2007, from http://www.ucsusa.org/global_warming/science/ucs-examines-the-skeptical-environmentalist.html

Gonzalez, P. D. R. (2005). Analyzing the factors influencing clean technology adoption: a study of the Spanish pulp and paper industry. *Business Strategy and the Environment, 14*(1), 20-37.

Graebner, M. E., & Eisenhardt, K. M. (2004). The seller's side of the story: Acquisition as courtship and governance as syndicate in entrepreneurial firms. *Administrative Science Quarterly, 49*(3), 366-403.

Grant, R. M. (1991). The resource based theory of competitive advantage: implications for strategy formulation. *California Management Review, 33*(3), 114-135.

Gray, R. (1994). The challenge of going green. *Harvard Business Review, 72*(4), 46-47.

Greeno, J. L. (1994). The challenge of going green. *Harvard Business Review, 72*(4), 39-40.

Greenpeace. (1995). Ken Saro Wiwa and 8 Ogoni people executed: Blood on Shell's hands Retrieved June 7 2007, from http://archive.greenpeace.org/comms/ken/murder.html

Greenwood, R., & Suddaby, R. (2006). Institutional entrepreneurship in mature fields: The big five accounting firms. *Academy of Management Journal, 49*(1), 27-48.

Grubb, M. (2001). Relying on manna from heaven? *Science, 294*(9 November), 1285-1287.

Hansen, M. W. (2003). Managing the environment across borders: a survey of environmental management in transnational corporations in Asia. *Transnational Corporations, 12*(1), 27-52.

Harrison, C. (2004). Peer review, politics and pluralism. *Environmental Science and Policy, 7*, 357-368.

Harrison, J. S., & Freeman, R. E. (1999). Stakeholders, social responsibility, and performance: empirical evidence and theoretical perspectives. *Academy of Management Journal, 42*(5), 479-485.

Hart, S. L. (1995). A natural resource based view of the firm. *Academy of Management Review, 20*(4), 986-1014.

Hart, S. L. (1997). Beyond greening: strategies for a sustainable world. *Harvard Business Review, 75*(1), 67-76.

Hart, S. L., & Ahuja, G. (1996). Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance. *Business Strategy and the Environment, 5*(1), 30-37.

Hart, S. L. (2007). *Capitalism at the crossroads: Aligning business, earth and humanity*. New Jersey: Wharton School Publishing.

Hartman, R. S., Huq, M., & Wheeler, D. (1997). Why paper mills clean up: Determinants of pollution abatement in four Asian countries. *World Bank, Policy research working paper* (1710), 1-38.

Hawken, P. (1993). *The ecology of commerce: A declaration of sustainability* (1st ed.). New York, NY: HarperBusiness.

Henriques, I., & Sadorsky, P. (1996). The determinants of an environmentally responsive firm: An empirical approach. *Journal of Environmental Economics and Management, 30*(3), 381-395.

Henriques, I., & Sadorsky, P. (1999). The relationship between environmental commitment and managerial perceptions of stakeholder importance. *Academy of Management Journal, 42*(1), 87-99.

Hettige, H., Huq, M., Pargal, S., & Wheeler, D. (1996). Determinants of pollution abatement in developing countries: Evidence from South and Southeast Asia. *World Development, 24*(12), 1891-1904.

Hoffman, A. J. (1999). Institutional evolution and change: Environmentalism and the U.S. chemical industry. *Academy of Management Journal, 42*(4), 351-371.

Hoffman, A. J. (2007). If you're not at the table you're on the menu. *Harvard Business Review, 85*(10), 34-38.

Hofstede, G. H. (2001). *Culture's consequences: Comparing values, behaviours, institutions, and organizations across nations* (2 ed.). Thousand Oaks, California: Sage.

Hofstede, G. H., & Hofstede, G. J. (2005). *Cultures and organizations: Software of the mind* (2 ed.). London: Mc Graw-Hill.

Holdren, J. P. (2002). Energy: Asking the wrong question. *Scientific American, 286*(1), 65-67.

Holliday, C. O., Schmidheiny, S., & Watts, P. (2002). *Walking the talk: The business case for sustainable development*. Sheffield: Greenleaf.

Huber, J. (1982). *Die verlorene unschuld der OKologie. Neue Technologien und superindustriellen Entwicklung*. Frankfurt: Fisher Verlag.

Hunt, C. B., & Auster, E. R. (1990). Proactive environmental management: avoiding the toxic trap. *Sloan Management Review, 31*(2).

IPCC. (2001). *Climate change 2001: impacts adaptation and vulnerability*: Grid Arendale.

IPCC. (2007). Climate change 2007: the physical science basis. *Retrieved February 27, 2007, from: http://ipcc-wg1.ucar.edu/wg1/docs/WG1AR4_SPM_Approved_05Feb.pdf*

Islam, M. S. (2007). Achieving economic growth in China and India- at what environmental cost?   Retrieved January 15 2007, from http://www.isas.nus.edu.sg/

Jaffe, A., & Palmer, K. (1997). Environmental regulation and innovation: a panel data study. *Review of Economics and Statistics, 79*, 610-619.

Jaffe, A., Peterson, S. R., Portney, P. R., & Stavins, R. N. (1995). Environmental regulation and the competitiveness of U.S. manufacturing: What does the evidence tell us? *Journal of Economic Literature, 33*(March), 132-163.

Jamali, D. (2007). The case for strategic corporate social responsibility in developing countries. *Business and Society Review, 112*(1), 1-27.

Jennings, P. D., & Zandbergen, P. A. (1995). Ecologically sustainable organizations: an institutional approach. *Academy of Management Review, 20*(4), 1015-1052.

Jeppesen, S., & Hansen, M. W. (2004). Environmental upgrading of third world enterprises through linkages to transnational corporations. Theoretical perspectives and preliminary evidence. *Business Strategy and the Environment, 13*(4), 261-274.

Jeswani, H. K., Wehrmeyer, W., & Mulugetta, Y. (2008). How warm is the corporate response to climate change? Evidence from Pakistan and the UK. *Business Strategy and the Environment, 18*(1), 46-60.

Jones, T. M. (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review, 20*(2), 404-437.

Jones, T. M., & Wicks, A. C. (1999). Convergent stakeholder theory. *Academy of Management Review, 24*(2), 206-221.

Kalnins, A. (2007). Sample selection and theory development: Implications of firms' varying abilities to appropriately select new ventures. *Academy of Management Review, 32*(4), 1246-1264.

Kassinis, G., & Vafeas, N. (2006). Stakeholder pressure and environmental performance. *Academy of Management Journal, 49*(1), 145-159.

Kearins, K., & Pavlovich, K. (2002). The role of stakeholders in Sydney's green games. *Corporate Social Responsibility and Environment Management, 9*(3), 157-169.

Ketchen, D. J., Hult, G. T. M., & Slater, S. F. (2007). Towards greater understanding of market orientation and the resource-based view. *Strategic Management Journal, 28*(9), 961-964.

King, A. (1995). Avoiding ecological surprise: lessons from long-standing communities. *Academy of Management Review, 20*(4), 961-985.

King, A., & Lenox, M. J. (2000). Industry self regulation without sanctions: the chemical industry's responsible care program. *Academy of Management Journal, 43*(4), 698-716.

King, A., Lenox, M. J., & Teralaak, A. (2005). The strategic use of decentralized institutions: exploring certification with the ISO 14001 management standard. *Academy of Management Journal, 48*(6), 1091-1106.

Klassen, R. D., & McLaughlin, C. P. (1996). The impact of environmental management on firm performance. *Management Science, 42*(8), 1199-1214.

Klassen, R. D., & Whybark, D. C. (1999). The impact of environmental technologies on manufacturing performance. *Academy of Management Journal, 42*(6), 599-615.

Kluger, J. (2007). What Now? *Time, 13,* 36-44.

Kolk, A. (2008). Sustainability, accountability and corporate governance: Exploring multinational reporting practices. *Business Strategy and the Environment, 18*(1), 1-15.

Konrad, A. M., & Linnehan, F. (1995). Formalized HRM structures: Coordinating equal employment opportunity or concealing organizational practices? *Academy of Management Journal, 38*(3), 787-820.

Kostova, T., & Zaheer, S. (1999). Organizational legitimacy under conditions of complexity: The case of the multinational enterprise *Academy of Management Review, 24*(1), 64-81.

Lamberts, R. (2002). The seductive statistician, or how controversy sells books. *Australian Review of Public Affairs, May 13*.

Lawrence, S., Collins, E., Pavlovich, K., & Arunachalam, M. (2006). Sustainability practices of SMEs: The case of NZ. *Business Strategy and the Environment, 15*(4), 242-257.

Lee, T. W., Mitchell, T. R., & Sablynski, C. J. (1999). Qualitative research in organizational and vocational psychology, 1979-1999. *Journal of Vocational Behaviour, 55*, 161-187.

Leopold, A. (1949). *A sand country almanac*. New York: Oxford University Press.

Lepkowski, W. (1987). The disaster at Bhopal- chemical safety in the third world. In C. S. Pearson (Ed.), *Multinational corporations, environment and the third world: Business matters*. Durham: Duke University Press.

Levy, D. L. (1995). The environmental practices and performance of transnational corporations. *Transnational Corporations, 4*(1), 44-67.

Livesey, S. M., & Kearins, K. (2002). Transparent and caring organizations?: A study of sustainability reports by the Body Shop and Royal Dutch Shell. *Organization and Environment, 15*(3), 233-258.

Lomborg, B. (2001). *The skeptical environmentalist: Measuring the real state of the world*. Cambridge ; New York: Cambridge University Press.

Lovejoy, T. (2002). Biodiversity: dismissing scientific process. *Scientific American, 286*(1), 69-71.

Lovelock, J. (1982). *Gaia :A new look at life on earth* (1'st ed.). Oxford: Oxford University Press.

Lovelock, J. (1995). *The ages of Gaia: a biography of our living earth* (2nd ed.). Oxford: Oxford University Press.

Luken, R., & Stares, R. (2005). Small business responsibility in developing countries: a threat or an opportunity. *Business Strategy and the Environment, 14*(1), 38-53.

Maddox, J. (1972). *The Doomsday Syndrome*. London: Macmillan.

Majumdar, S. K., & Marcus, A. A. (2001). Rules versus discretion: The productivity consequences of flexible regulations. *Academy of Management Journal, 44*(1), 170-180.

Malhotra, N., Hall, J., Shaw, M., & Oppenheim, P. (2006). *Marketing research: An applied orientation* (3 ed.). French Forests NSW: Pearson Education Australia.

Marco, G. J., Hollingworth, R. M., & Durham, W. (1987). *Silent spring revisited*. Washington, DC: American Chemical Society.

Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly, 48*(2), 268-305.

Marrewijk, M. v., & Werre, M. (2003). Multiple levels of corporate sustainability. *Journal of Business Ethics, 44*(2/3), 107-111.

Mattel Toys. (2007). Voluntary recall. Retrieved November 1, 2007, from http://www.mattel.com/safety/us/

Matten, D., & Moon, J. (2008). "Implicit" and "explicit" CSR: A conceptual framework for a comparative understanding of corporate social responsibility. *Academy of Management Review, 33*(2), 404-424.

Meadows, D. H., Meadows, D. L., & Randers, J. (1992). *Beyond the limits: Confronting global collapse, envisioning a sustainable future*. Post Mills, Vt.: Chelsea Green Pub. Co.

Meadows, D. H., Randers, J., & Meadows, D. L. (2004). *Limits to growth: The 30 year update*. London: Earthscan.

Menguc, B., & Ozanne, L. K. (2005). Challenges of the "green imperative": A natural resource based approach to the environmental orientation-business performance relationship. *Journal of Business Research, 58*(4), 430-439.

Menon, A., & Menon, A. (1997). Enviropreneurial marketing strategy: The emergence of corporate environmentalism as market strategy. *Journal of Marketing, 61*(1), 51-68.

Miles, M., & Munilla, L. S. (1993). The eco marketing orientation: An emerging business philosophy. In *Environmental Marketing: Re -Evaluating the Tenets of Marketing*.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks California: Sage Publications.

Millennium Ecosystem Assessment Synthesis Report. (2005). *Ecosystem and human well being: Synthesis*. Washington, D.C: Island Press.

Milne, M. J., Kearins, K., & Walton, S. (2006). Creating adventures in wonderland: The journey metaphor and environmental sustainability. *Organization and Environment, 13*(6), 801-839.

Ministry for the Environment. (2001). Valuing New Zealand's clean and green image Retrieved 15 January 2007, from http://www.mfe.govt.nz/publications/sus-dev/clean-green-image-value-aug01/index.html

Mirvis, P. H. (2000). Transformation at Shell: Commerce and citizenship. *Business and Society Review, 105*(1), 63-84.

Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Towards a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of Management Review, 22*(4), 853-886.

Mol, A. P. J. (1995). *The refinement of production: Ecological modernisation theory and the chemical industry*. Utrecht: Jan van Arke/ International Books.

Mol, A. P. J., & Sonnenfeld, D. A. (2000). Ecological modernisation around the world: An introduction. *Environmental Politics, 9*(1), 3-14.

Mol, A. P. J., & Spaargaren, G. (2000). Ecological modernisation theory in debate: A review. *Environmental Politics, 9*(17-49).

Mukherjee, S., & Kathuria, V. (2006). Is economic growth sustainable? Environmental quality of Indian states after 1991. *International Journal of Sustainable Development, 9*(1), 38-60.

Myers, J. W., & Rowan, B. (1977). "Institutional organizations: Formal structure as myth and ceremony." *American Journal of Sociology, 83*, 340-363.

Nair, S. R., & Menon, C. G. (in press). An environmental marketing system-a proposed model based on Indian experience *Business Strategy and the Environment*.

Nehrt, C. (1996). Timing and intensity effects of environmental investments. *Strategic Management Journal, 17*, 535-547.

Oliver, C. (1991). Strategic response to institutional processes. *Academy of Management Review, 16*(1), 145-179.

Oliver, C. (1997). Sustainable competitive advantage: combining institutional and resource based views. *Strategic Management Journal, 18*(9), 697-713.

Ottman, J. A. (1998). *Green marketing : Opportunity for innovation*. Chicago: NTC business books.

Palmer, K., Oates, W., & Portney, P. (1995). Tightening environmental standards: The benefit cost or the no cost paradigm? *Journal of Economic Perspectives, 9*(4), 119-132.

Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, Calif.: Sage Publications.

Pearson, C. S. (1985). *Down to business: Multinational corporations, the environment and development*: World Resources Institute.

Pearson, C. S. (1987). Environmental standards, industrial relocation, and pollution havens. In C. S. Pearson (Ed.), *Multinational corporations, environment and the third world: Business matters*. Durham: Duke University Press.

Penrose, E. (1959). *The theory of the growth of the firm*. New York: Wiley.

Petts, J., Herd, A., Gerrard, S., & Horne, C. (1999). The climate and culture of environmental compliance within SMEs. *Business Strategy and the Environment, 8*(1), 14-30.

Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations*. New York: Harper & Row.

Pielke, R. A. (2002). Policy, politics and perspective. *Nature, 416*(28 March), 367-368.

Piet, J. (1994). The challenge of going green. *Harvard Business Review, 72*(4), 43.

Pimm, S., & Harvey, J. (2001). No need to worry about the future. *Nature, 414*(8 November), 149-150.

Pirages, D. C., & Ehrlich, P. R. (1974). *Ark II: Social Response to Environmental Imperatives*. San Francisco: W.H. Freeman and Company.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*(4), 531-544.

Polonsky, M. J. (1995). A stakeholder theory approach to designing environmental marketing strategy. *Journal of Business and Industrial Marketing, 10*(3), 29-46.

Porter, M. E. (1980). *Competitive strategy*. New York: Free Press.

Porter, M. E. (1991). America's greening strategy. *Scientific American, 264*, 96.

Porter, M. E., & Linde, C. v. d. (1995a). Green and competitive: ending the stalemate. *Harvard Business Review, 73*(5), 120-134.

Porter, M. E., & Linde, C. v. d. (1995b). Towards a new conception of the environment - competitiveness relationship. *Journal of Economic Perspectives, 9*(4), 97-118.

Porter, M. E., & Reinhardt, F. L. (2007). A strategic approach to climate. *Harvard Business Review, 85*(10), 22-26.

Potoski, M., & Prakash, A. (2005). Covenants with weak swords: ISO 14001 and facilities' environmental performance. *Journal of Policy Analysis and Management, 24*(4), 745-769.

Pradhan, G., & Barik, K. (1999). Environment friendly behaviour and competitiveness: A study of pulp and paper industry in India. *Environmental and resource economics, 14*(4), 481-501.

Prahalad, C. K., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review, 68*(3), 79-91.

Prakash, A. (1999). A new institutionalist perspective on ISO 14000 and responsible care. *Business Strategy and the Environment, 8*(6), 322-335.

Prakash, A. (2001). Why do firms adopt 'beyond compliance' environmental policies. *Business Strategy and the Environment, 10*(5), 286-299.

Preuss, L. (2005). Rhetoric and reality of corporate greening: A view from the supply chain management function. *Business Strategy and the Environment, 14*(2), 123-139.

Pujari, D., Wright, G., & Peattie, K. (2003). Green and competitive: influences on environmental new product development performance. *Journal of Business Research, 56*, 657-671.

Rao, P. (2002). Greening the supply chain: A new initiative in South East Asia. *International Journal of Operations and Production Management, 22*(6), 632-655.

Rao, P. (2004). Greening production: A South-East Asian experience. *International Journal of Operations and Production Management, 24*(3), 289-320.

Rennie, J. (2002). Misleading math about the earth. *Scientific American, 286*(1), p.61.

Resource Management Act. (1991). Retrieved November 2, 2007, from http://www.legislation.govt.nz/

Responsible Care. (2007). Retrieved June 7 2007, from http://www.responsiblecare.org/

Revell, A., & Rutherfoord, R. (2003). UK environmental policy and the small firm: broadening the focus. *Business Strategy and the Environment, 12*(1), 26-35.

Riemen, D. J. (1986). The essential structure of a caring interaction: Doing phenomenology. In P. M. Munhall & C. J. Oiler (Eds.), *Nursing Research :A qualitative perspective* (pp. 85-105). Norwalk CT: Appleton-Century Crofts.

Rock, M. T. (2002). Pathways to industrial environmental improvement in the east Asian newly industrializing economies. *Business Strategy and the Environment, 11*(2), 90-102.

Rondinelli, D. A., & Berry, M. A. (2000). Environmental citizenship in multinational corporations: Social responsibility and sustainable development. *European Management Journal, 18*(1), 70-84.

Roome, N. (1992). Developing environmental management strategies. *Business Strategy and the Environment, 1*(1), 11-24.

Roper, J., Collins, E., & Toledano, M. (2004). Risk, issues and precaution: Seeking legitimacy in response to climate change. *Australian Journal of Communication, 31*(3), 41-52.

Rowley, T. J. (1997). Moving beyond dyadic ties: A network theory of stakeholder influences. *Academy of Management Review, 22*(4), 887-910.

Rowley, T. J., & Moldoveanu, M. (2003). When will stakeholder groups act? An interest- and identity- based model of stakeholder group mobilization. *Academy of Management Review, 28*(2), 204-219.

Rugman, A. M., & Verbeke, A. (1998a). Corporate strategies and environmental regulations: an organizing framework. *Strategic Management Journal, 19*(4), 363-375.

Rugman, A. M., & Verbeke, A. (1998b). Corporate strategy and international environmental policy. *Journal of International Business Studies, 29*(4), 819-834.

Russo, M. V., & Fouts, P. A. (1997). A resource based perspective on corporate environmental performance and profitability. *Academy of Management Journal, 40*(3), 534-559.

Russo, M. V., & Harrison, N. S. (2005). Organizational design and environmental performance: Clues from the electronic industry. *Academy of Management Journal, 48*(4), 582-593.

Ruud, A. (2002). Environmental management of transnational corporations in India- are TNC's creating islands of environmental excellence in a sea of dirt? *Business Strategy and the Environment, 11*(2), 103-118.

Rynes, S. L., Bretz, R. D., & Gerhart, B. (1991). The importance of recruitment in job choice: A different way of looking. *Personnel Psychology, 44*, 487-520.

Saha, M., & Darnton, G. (2005). Green companies or green con-panies: Are companies really green, or are they pretending to be? *Business and Society Review, 110*(2), 117-157.

Schmidheiny, S. (1992). *Changing course: a global business perspective on development and the environment*. Cambridge: MIT Press.

Schneider, S. (2002). Global warming: Neglecting the complexities. *Scientific American, 286*(1), 62-65.

Schwartz, P. (2007). Investing in global security. *Harvard Business Review, 85*(10), 26-28.

Scott, S. G., & Lane, V. R. (2000). A stakeholder approach to organizational identity. *Academy of Management Review, 25*(1), 43-62.

Scott, W. R. (1987). The adolescence of institutional theory. *Administrative Science Quarterly, 32*(4), 493-511.

Sen, S., & Bhattacharya, C. B. (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research, 38*(May), 225-243.

Sharfman, M. P., & Fernando, C. S. (2008). Environmental risk management and the cost of capital. *Strategic Management Journal, 29*(6), 569-592.

Sharfman, M. P., Shaft, T. M., & Anex, R. P. (in press). The road to cooperative supply-chain environmental management: Trust and uncertainty among pro-active firms. *Business Strategy and the Environment*.

Sharma, S. (2000). Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. *Academy of Management Journal, 43*(4), 681-697.

Sharma, S. (2001). Different strokes: regulatory styles and environmental strategy in the North American oil and gas industry. *Business Strategy and the Environment, 10*(6), 344-364.

Sharma, S., & Henriques, I. (2005). Stakeholder influence on sustainability practices in the Canadian forest products industry. *Strategic Management Journal, 26*(2), 159-180.

Sharma, S., & Starik, M. (2002). *Research in corporate sustainability*. Cheltenham: Edward Elgar Publishing, Inc.

Sharma, S., & Vredenburg, H. (1998). Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities. *Strategic Management Journal, 19*(8), 729-753.

Shell. (2007a). Brent Spar. Retrieved June 7 2007, from http://www.shell.com/home/Framework?siteId=uk-en&FC2=/uk-en/html/iwgen/about_shell/brentspardossier/brentsparstory/zzz_lhn.html&FC3=/uk-en/html/iwgen/about_shell/brentspardossier/brentsparstory/thestory_09101000.html

Shell. (2007b). Meeting the energy challenge. Retrieved June 12, 2007, from http://www.shell.com/home/Framework?siteId=home

Shell (Nigeria). (2007a). Human rights. Retrieved June 7 2007, from http://www.shell.com/home/content/nigeria/about_shell/issues/human_rights/hum_rights.html

Shell (Nigeria). (2007b). The Ogoni issue. Retrieved June 7 2007, from http://www.shell.com/home/content/nigeria/about_shell/issues/ogoni/ogoni.html

Shrivastava, P. (1992). *Bhopal: anatomy of a crisis* (2'nd ed.). London: Paul Chapman Publishing.

Shrivastava, P. (1994). CASTRATED environment: GREENING organizational studies. *Organization Studies, 15*(5), 705-726.

Shrivastava, P. (1995a). Ecocentric management for a risk society. *Academy of Management Review, 20*(1), 118-137.

Shrivastava, P. (1995b). Environmental technologies and competitive advantage. *Strategic Management Journal, 16*(5), 183-200.

Shrivastava, P. (1995c). The role of corporations in achieving ecological sustainability. *Academy of Management Review, 20*(4), 936-960.

Siggelkow, N. (2007). Persuasion with case studies. *Academy of Management Journal, 50*(1), 20-24.

Simon, J. L. (1981). *The ultimate resource*. Princeton, New Jersey: Princeton University Press.

Sirmon, D. G., Hitt, M. A., & Ireland, R. D. (2007). Managing firm resources in dynamic environments to create value: Looking inside the black box. *Academy of Management Review, 32*(1), 273-292.

Smart, B. (1994). The challenge of going green. *Harvard Business Review, 72*(4), 42-43.

Springett, D. (2003). An 'Incitement to discourse': Benchmarking as a springboard to sustainable development. *Business Strategy and the Environment, 12*(1), 1-11.

Starik, M., & Rands, G. P. (1995). Weaving an integrated web: multilevel and multisystem perspectives of ecologically sustainable organizations. *Academy of Management Review, 20*(4), 908-935.

Stead, J. G., & Stead, E. (2000). Eco -Enterprise strategy: Standing for sustainability. *Journal of Business Ethics, 24*, 313-329.

Stern Report. (2006). Stern review: The economics of climate change. Retrieved March 6, 2008, from http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm

Stoeckl, N. (2004). The private costs and benefits of environmental self regulation: Which firms have most to gain? *Business Strategy and the Environment, 13*(3), 135-155.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks: Sage Publications.

Stuligross, D. (1999). The political economy of environmental regulation in India. *Pacific Affairs, 72*(3), 392-406.

Suchman, M. S. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review, 20*(3), 571-610.

Suddaby, R. (2006). From the editors: What grounded theory is not. *Academy of Management Journal, 49*(4), 633-642.

Suter, K. (1999). Fair warning? The club of Rome revisited. Retrieved June 12, 2007, from http://www.abc.net.au/science/slab/rome/default.htm

Sutton, R. I., & Rafaeli, A. (1988). Untangling the relationship between displayed emotions and organizational sales: The case of convenience stores. *Academy of Management Journal, 31*(3), 461-487.

Teece, D. J. (1986). Profiting from technological innovation: implications for integration, collaboration, licensing and public policy. *Research Policy, 15*(6), 285-305.

The Cancer Council. (2007). All about UV. Retrieved May 7, 2007, from http://www.cancer.org.au/content.cfm?randid=960742#factscan

The Economist. (2002 February 2). The litany and the heretic; "The Skeptical Environmentalist". (Why has Bjorn Lomborg created such a stir among environmentalists?). Retrieved May 10, 2007, from Academic OneFile database

The Economist. (2007, February 25). Country profile: India. Retrieved February 26, 2008, from http://www.economist.com/countries/India/profile.cfm?folder

Time. (2007). What now? Our feverish planet badly needs a cure. *April 9*.

UNCTAD. (2002). Managing the environment across borders. Retrieved 1 August 2007, from http://www.unctad.org/en/docs/iteipcmisc12_en.pdf

UNEP. (2007). Climate Change. Retrieved May 10, 2007, from http://www.unep.org/themes/climatechange/

Union of Concerned Scientists. (2003). Union of concerned scientists examines the skeptical Environmentalist by Bjorn Lomborg. Retrieved May 8, 2007, from http://www.ucsusa.org/global_warming/science/ucs-examines-the-skeptical-environmentalist.html

United Nations. (2006). The millennium development goals report. Retrieved February 27, 2007, from http://www.un.org/millenniumgoals/

United Nations. (2007). United Nations Common Database. Retrieved June 27, 2007, from http://unstats.un.org/unsd/cdb/cdb_dict_xrxx.asp?def_code=491

United Nations Framework Convention on Climate Change. (2008). Retrieved 2 May 2008, from http://unfccc.int/2860.php

Van Maanen, J., Sorensen, J. B., & Mitchell, T. R. (2007). The interplay between theory and method. *Academy of Management Review, 32*(4), 1145-1154.

Wagner, K. A., Bailey, P. C., & Campbell, G. H. (1973). *Under siege: Man, men and Earth*. Aylesbury, Bucks: International Textbook Company.

Walley, N., & Whitehead, B. (1994). It's not easy being green. *Harvard Business Review, 72*(3), 46-52.

Ward, B., & Dubos, R. (1972). *Only one earth: The care and maintenance of a small planet*. London: Andre Deutsch.

Wartick, S. L., & Cochran, P. L. (1985). The evolution of the corporate social performance model. *Academy of Management Review, 10*(4), 758-769.

WCED. (1987). *Our Common Future*. New York: Oxford University Press.

Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly, 38*(4), 628-652.

Weick, K. E. (2007). The generative properties of richness. *Academy of Management Journal, 50*(1), 14-19.

Weitzman, M. L. (2007). A review of the Stern review on the economics pf climate change. *Journal of Economic Literature*, 45(3), 703-724.

Welch, E. W., Mori, Y., & Aoyagi-Usui, M. (2002). Voluntary adoption of ISO 14001 in Japan: mechanisms, stages and effects. *Business Strategy and the Environment, 11*(1), 43-62.

Welford, R. (1996). *Corporate environmental management: Systems and strategies*. London: Earthscan.

Welford, R. (1997). *Hijacking environmentalism: Corporate responses to sustainable development*. London: Earthscan Publications.

Welford, R. (1998). *Corporate environmental management 1: Systems and strategies* (2nd ed.). London: Earthscan.

Welford, R., & Gouldson, A. (1993). *Environmental management and business strategy*. London: Pitman Pub.

Wells, R. P. (1994). The challenge of going green. *Harvard Business Review, 72*(4), 43-46.

Wernerfelt, B. (1984). A resource based view of the firm. *Strategic Management Journal, 5*(2), 171-180.

Whiteman, G., & Cooper, W. H. (2000). Ecological Embeddedness. *Academy of Management Journal, 43*(6), 1265-1282.

Wilson, E. O., Lovejoy, T. E., Myers, N., Harvey, J. A., & Pimm, S. L. (2003). Biodiversity distortions in Lomborg's The Skeptical Environmentalist. Retrieved May 8 2007, from http://www.ucsusa.org/global_warming/science/ucs-examines-the-skeptical-environmentalist.html

World Bank. (2007). India: Country environmental analysis, strengthening institutions for sustainable growth. Retrieved June 27, 2007, from http://go.worldbank.org/4HGVXLOEK0

Worldwatch Institute. (2005). *State of the world 2005 : A Worldwatch Institute Report on progress towards a sustainable society*. London: Earthscan.

Yin, R. K. (2003). *Case study research: Designs and methods* (3 ed.). Thousand Oaks, California: Sage Publications.

Zott, C., & Huy, Q. N. (2007). How entrepreneurs use symbolic management to acquire resources. *Administrative Science Quarterly, 52*(1), 70-105.